

JUNIOR HIGH SCHOOL EDUCATION

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JUNIOR HIGH SCHOOL EDUCATION

By

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THE HOUSE OF APPLIED KNOWLEDGE

Established 1905 by Caspar W. Hodgson

YONKERS-ON-HUDSON, NEW YORK

2126 PRAIRIE AVENUE, CHICAGO

Although of recent development, the idea of the junior high school as a distinct entity, as a new institution set apart in aims and methods from both grammar school and high school, is old enough to have demonstrated its value. But the junior high school movement in its inception was a scattered one; the peculiar problems that have arisen in connection with it have been met diversely; and there has been considerable variance in aims and methods. As the movement grows, it becomes increasingly important to determine just what are the distinctive aims and methods of the junior high school, and what should be its program, its courses, and its equipment. To give a comprehensive view of this latest characteristic development in the organization of our public schools is the aim of *Junior High School Education*. The volume shows what has been done in reorganizing schools throughout the country; indicates the trend of the junior high school movement; presents curricula of different schools for comparison; and supplies material and suggestions that may be made the basis of constructive work

DJHSE-7

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PREFACE

FIFTEEN years ago, while he was a student working under Professor Paul H. Hanus of Harvard University, the author of this book became acquainted with the theory of the junior high school. From the beginning it appealed to him greatly. It seemed to him to be based upon sound psychology, sound pedagogy, and sound common sense. As an American educator, he has ever since been an advocate of the junior high school plan. He has watched it grow in favor among teachers, school administrators, and members of the general public. He has noted the changes that have taken place in it during the past decade and a half and, while studying the practical treatment it has received in the public schools, he has endeavored to do some constructive thinking on the subject of the plan himself. He is convinced, as a result of his observations, that the junior high school has come into the American educational system to stay.

As an agency for fostering democracy and a way of giving boys and girls a keener interest in their school work and a better preparation for post-school life, the author believes that the junior high school plan should be still further developed and its use extended. He believes its development should be guided and not left wholly to chance, and he has prepared this book in the hope that he may be able to indicate the application of certain pedagogical principles to the new plan and to present them in a plain and straightforward fashion to all those who have the cause of American education at heart. He is well aware that his is not the first book to occupy the field, nor can he hope that it will prove the most conclusive. He has endeavored to add his contribution to the good work of others rather than needlessly to duplicate their conclusions. Although he has made rather free use of data gathered by others and has availed

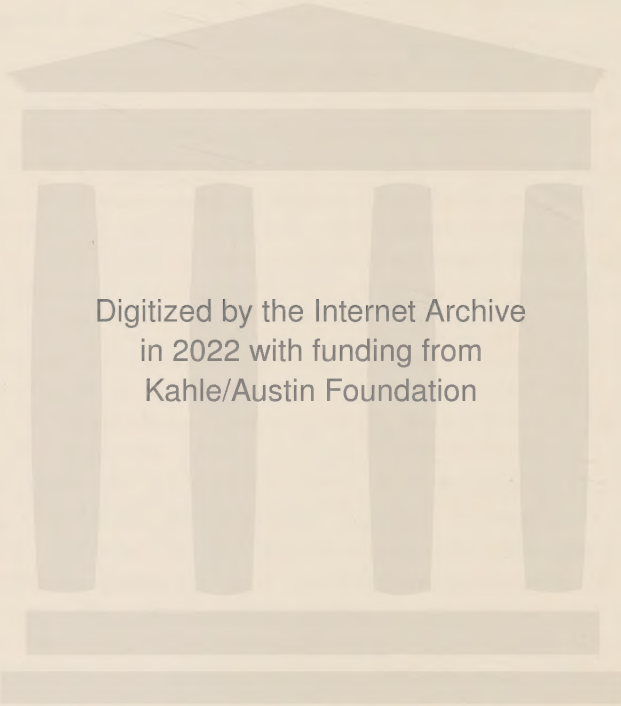
himself of permission to quote from printed authorities and to utilize particular accounts of the work now being carried on in various junior high schools of America, he has also drawn somewhat heavily upon his own resources, especially upon the facts he obtained in the course of many visits paid to junior high schools in various parts of the country, and upon his collection of printed courses of study, syllabi, and special circulars pertaining to particular schools.

In this connection it may be said that in the effort to obtain data upon which to base his presentation of the junior high school plan in operation, the author applied to nearly every board of education in the United States that was reported to have adopted the new arrangement and to have junior high schools with unique and interesting features under its control. The result of these inquiries was very disappointing. Replies were received from nearly all of the authorities addressed, but the majority of them either had no unique school features to describe or else had no data at hand that would serve to illustrate the matter. There were, however, a few notable exceptions. Los Angeles, St. Louis, Detroit, Buffalo, and Rochester forwarded material of great interest and value, and important aid was furnished by Grand Rapids, Kalamazoo, Columbus, Berkeley, and Duluth. Among the smaller cities, Adrian, Menominee, Bellevue, and Monmouth afforded the greatest help. To the school authorities of these various cities, the author wishes to express his gratitude. His thanks are due also to the State Departments of Public Instruction of Massachusetts, Pennsylvania, Wisconsin, and California. The pages of the *School Review*, and especially the articles concerning the junior high school written by the editor, R. L. Lyman, have been an inspiration to him, and he has likewise derived great encouragement from the publications of the Committee on the Reorganization of Education, edited by Clarence D. Kingsley.

In addition, the author acknowledges his special obligation to Dean A. S. Whitney and Professor J. B. Edmonson, of the University of Michigan, both of whom have helped him by constructive criticism. He also wishes to acknowledge his indebtedness to his wife, Winifred Ellen Davis, for painstaking help in preparing the manuscript, editing the index, and correcting the proof.

CALVIN O. DAVIS

UNIVERSITY OF MICHIGAN



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CONTENTS

CHAPTER

PAGE

I. WHAT THE JUNIOR HIGH SCHOOL IS . . .	1
Organization — The Name of the New School — The Junior High School Not a Part of the Six-Year High School — Conclusion	
II. HISTORICAL DEVELOPMENT	15
Beginnings of Change in the High School System — Development from 1890 to 1910 — Development from 1910 to the Present — Summary	
III. ADOLESCENT CHARACTERISTICS AND THEIR IMPLICATIONS	30
Old Assumptions as to Adolescence — Newer Views and Deductions — General Conditions of Adolescence — Rapid Development the Characteristic of the Adolescent Period — What the School Must Give to the Adolescent Pupil	
IV. FOUR AIMS OF THE REFORM	52
First Aim: To Humanize the Education of Adolescents — Second Aim: To Economize School Time — Third Aim: To Prevent Unnecessary Withdrawals — Fourth Aim: To Further the Cause of Democracy in Education	
V. WHY THE SIX-THREE-THREE PLAN IS RECOMMENDED	66
Objections to the Eight-Four Plan — Revised Theory of Mental Discipline — Changed Conception of Culture — Practices in Foreign Countries — Administrative Considerations	
VI. WHAT THE NEW SCHOOL SHOULD ACCOMPLISH	88
VII. THE PROGRAM OF STUDIES	104
The Content of the Course of Study — Administration of the Program — Curricula	
VIII. PHYSICAL TRAINING AND HEALTH	125
Present-day Programs in Physical Education — Course of Study for Junior High School, Rochester, New York (1919) — Physical Education (Girls) — Physical Education (Boys) — Instruction Regarding Sex — What All Teachers May Do — Sex Instruction in the Curriculum	

CHAPTER	PAGE
IX. ENGLISH	136
Current Teaching of English — Methods Suggested — Courses of Study in English — Recommendations	
X. FOREIGN LANGUAGES	160
The Need for a General Introductory Course — The Place of Latin in the Foreign-Language Course — Aims and Methods in the Teaching of Latin — Modern Foreign Languages — Conclusion	
XI. THE SOCIAL STUDIES	178
Teaching of History as the Foremost Social Study — Desirability of a New Course in Citizenship — In- dications of the Demand for Training in Citizenship — Seventh Grade — Eighth Grade — Ninth Grade	
XII. MATHEMATICS	195
General Statement of Course of Study in Mathe- matics of Junior High School — Seventh Grade — Eighth Grade — Ninth Grade — Shop Mathematics of the Ninth Grade	
XIII. NATURAL SCIENCE	211
Menominee, Michigan — Monmouth, Illinois — St. Louis, Missouri — Rochester, New York — Eighth B or Eighth A Grade — Laboratory Equipment	
XIV. PRACTICAL ARTS	230
What the Subject Includes — Try-out Courses — Social and Civic Aspects — Typical Courses of Study — Home Economics — Commercial Training — Typ- ical Courses in Commercial Training — Agriculture — A Typical Course in Agriculture — A Course in General Mechanics — Vocational Training — Voca- tional Guidance — Student Vocational Self-analysis	
XV. FINE ARTS AND MUSIC	270
Value and Place of Art in the Public Schools — Typi- cal Courses of Study in Art and Music — Instruction in Music — New York Music Memory List — Summary	
XVI. MORALS AND MANNERS	284
Expedients for Training in Morals and Manners — Stories and Essays for Course in Ethics	
XVII. TYPICAL PROGRAMS	292
Berkeley, California — Pasadena — Grand Rapids —	

CONTENTS

ix

CHAPTER

PAGE

Jackson — Menominee — Kalamazoo — Detroit —
Buffalo — St. Louis — Davenport — Duluth — Sum-
mary — A Proposed Program of Studies for Junior
High Schools

XVIII. ADMINISTRATION 328

Relation between the Junior and Senior High Schools
— The Problem of Credits — Weekly Class Periods
— Number and Length of Periods in School Day —
Supervision of Study — Departmental Instruction —
Elective Studies — Special Arrangements — Methods
of Teaching — Qualifications of Teachers — Gradu-
ation Exercises — Costs — Conclusion

XIX. COLLATERAL ACTIVITIES 353

General Assembly — Community Service — Student
Self-government — School Clubs — Dramatics —
Social Recreation — Athletics

XX. THE JUNIOR HIGH SCHOOL BUILDING . . . 373

Jackson, Michigan — Buffalo — Detroit — Massa-
chusetts

XXI. JUNIOR HIGH SCHOOL STANDARDS . . . 386

Standards Formulated in Massachusetts — The
North Central Association — Suggestions from Wash-
ington — Pennsylvania Requirements — Wisconsin
Requirements — Ten Standards for the Junior High
School

XXII. THE OUTLOOK FOR THE FUTURE . . . 406

Superintendent Horn of Texas — Duluth — Super-
intendent Silvernale of Menominee — Dr. A. E.
Winship — Thomas H. Briggs — Rochester, New
York — Boston — Fort Wayne

APPENDIX :

A. Selected Bibliography	417
B. Junior High School Textbooks	426
C. Reading Lists and Study Helps for the Junior High School Student	435
D. Committees on Secondary Education	445

INDEX 447

LIST OF ILLUSTRATIONS

	PAGE
Ground and first floor plans of a typical Junior High School at Buffalo, New York	37
Second and third floor plans of Junior High School at Buffalo, New York	38
Classes in gymnasiums of Hutchins Intermediate School, Detroit, Michigan	129
Auditorium and library, Hutchins Intermediate School, Detroit, Michigan	157
Views of the "General Shop" of the Latimer Junior High School, Pittsburgh, Pennsylvania	233
Woodworking class, Hutchins Intermediate School, Detroit, Michigan	237
Class in sewing and millinery, Latimer Junior High School, Pittsburgh, Pennsylvania	237
Class in cooking at the Edison Junior High School, Harrisburg, Pennsylvania	241
Class in cooking at the Henry R. Pattengill Junior High School, Lansing, Michigan	241
Combined lunchroom and domestic-science room, Junior High School, Longmeadow, Massachusetts	245
Domestic-science department, Hutchins Intermediate School, Detroit, Michigan	245
Second-story plan, Junior High School, Davenport, Iowa	254
The Henry R. Pattengill Junior High School, Lansing, Michigan	257
First-floor plan of Henry R. Pattengill Junior High School, Lansing, Michigan	259
Junior High School at Longmeadow, Massachusetts	272
Floor plans of Junior High School at Longmeadow, Massachusetts	275
Class in sewing, Allentown, Pennsylvania	365
Boy Scout troop, Pittsburgh, Pennsylvania	365
Floor plans of West Intermediate School, Jackson, Michigan	375
The Levi E. Barbour Intermediate School, Detroit, Michigan	381

ILLUSTRATIONS

xi

	PAGE
First-floor plan of Barbour Intermediate School, Detroit, Michigan	382
Second-floor plan of Barbour Intermediate School, Detroit, Michigan	383
Third-floor plan of Barbour Intermediate School, Detroit, Michigan	384
Washington Township Junior High School, Fayette County, Pennsylvania	400
Junior High School at Adams, Massachusetts	403
First and second floor plans of Junior High School at Adams, Massachusetts	404
Third-floor plan of Junior High School at Adams, Massachu- setts	405

JUNIOR HIGH SCHOOL EDUCATION

CHAPTER ONE

WHAT THE JUNIOR HIGH SCHOOL IS

ALTHOUGH the term Junior High School has been in use for more than a dozen years, there is evidence to show that confusion exists in the minds of many school administrators and educational theorists as to just what a junior high school is. The North Central Association of Colleges and Secondary Schools ¹ has probably done more to define the term than any other agency in the United States. For the past twenty-five years, this Association has been at work clarifying the issues, establishing the principles, and determining the policies that pertain to the secondary schools of America. The junior high school is one of the subjects with which the Association has dealt at length, and, this being so, we can hardly do better than to take its formulations in regard to the matter as a starting point for this chapter.

In 1918 the North Central Association unanimously approved the following declaration of principle: **RESOLVED**, *That the term Junior High School, as used by this Association, shall be understood to apply only to schools including the ninth grade combined with the eighth grade, or with the eighth and seventh grades, in an organization distinct from the grades above and the grades below.*²

In formulating the above resolution, the Association tentatively defined a junior high school, so far as external organization is concerned. It did not attempt to deal with the

¹ For a brief account of this organization, see an article entitled "The North Central Association," *School Review*, Vol. 29, June, 1921. At present the Association covers the territory of nineteen Middle Western states, and includes in its membership about two hundred institutions of higher learning and about fifteen hundred secondary schools.

² Bulletin, 1918, page 6.

program of studies, buildings, and other vital topics. Nor did it aim to establish a fixed convention in regard to the school's external form. It merely tried to make a finding that would serve as a definition for the time being.

In order to obtain data to guide it in making a more comprehensive and detailed finding, the Association, that same year, made an investigation concerning the junior high schools in North Central Association territory. A questionnaire was addressed to the accredited secondary schools of the Association. Replies were received from all (1165 in number). Two hundred and ninety-three schools reported that they had taken steps in the reorganization of their systems and had done so according to the junior and senior high school plan. The following are summaries of those reports:¹

ORGANIZATION

A. COMBINATIONS OF GRADES ORGANIZED AS UNITS

GRADES ORGANIZED AS A UNIT	NUMBER OF SCHOOLS	PERCENTAGE OF SCHOOLS
7-8-9	89	30.4
8-9	8	2.7
7-8	133	45.4
7-8-9-10-11-12	18	6.1
6-7-8	22	7.5
8	11	3.8
Other combinations	12	4.1

B. NAMES OF SCHOOLS

NAME	NUMBER OF SCHOOLS	PERCENTAGE
Junior High School	168	57.3
Departmental School	46	15.7
Six-Year High School	12	4.1
Various other names	67	22.9

¹ Bulletin, 1919, pages 10 *et seq.*

C. HOUSING ARRANGEMENTS

ARRANGEMENT	NUMBER OF SCHOOLS	PERCENTAGE
Junior and Senior High Schools together	138	47.1
Junior High School and Elementary School together	85	29
Junior High School housed in a separate building	49	16.7
Unspecified	21	7.2

D. DIVISIONS OF THE SCHOOL DAY

NUMBER OF PERIODS	NUMBER OF SCHOOLS ¹	PERCENTAGE
Five	16	5.5
Six	46	15.7
Seven	69	23.5
Eight	77	26.3
More than eight	77	26.3

E. CLASS PERIODS

LENGTH OF PERIOD	NUMBER OF SCHOOLS ²	PERCENTAGE
30 minutes	37	12.6
30 to 45 minutes	166	56.7
45 to 60 minutes	58	19.8
One hour plus	16	5.5

¹ Schools not replying, eight.² Schools not replying, sixteen.

F. CERTAIN CURRICULAR MODIFICATIONS

MODIFICATIONS	NUMBER OF SCHOOLS	PERCENTAGE
Departmental organizations . .	285	97.3
Promotion by subject	241	82.3
Supervised study	173	59
Choice of subjects	153	52.2
Vocational guidance	136	46.4
Introduction of secondary school subjects below ninth grade .	81	27.6
Practical arts below ninth grade	260	88.4
Music and drawing below ninth grade	221	75.4
Commercial work below ninth grade	49	16.7
Distinctive vocational work below ninth grade	15	5.1

G. CERTAIN ADMINISTRATIVE PRACTICES

PRACTICES	NUMBER OF SCHOOLS	PERCENTAGE
Junior High School graduation exercises	80	27.3
Admission of retarded or accel- erated pupils	108	36.9
Special qualifications for Junior High School teachers	88	30
Election of a Junior High School principal	176	60.1
Admission of part-time pupils .	139	47.4

These figures show that, even as late as 1918, a considerable number of school authorities were far from agreeing as to what constitutes a junior high school. If the North Central Association's resolution be taken as a criterion, only 97 of the 293 schools claiming to be junior high schools were

truly such schools. This is less than one third of the number making the claim, and only a little over 8 per cent of the entire number canvassed.

Confusion is also apparent when matters of organization and administration are considered. Of the 293 schools that claimed to have adopted the reform, only 16 per cent plus had segregated their junior high school pupils in a separate building,—to many educators, an absolutely indispensable part of the plan. Provision for some form of vocational guidance, for supervised study, and for some individual choice of subjects on the part of the pupil have also long been considered cardinal principles of the junior high school method; and yet only 52 per cent plus of the 293 schools in question allowed pupils a chance to choose subjects, only 46 per cent plus afforded pupils vocational guidance, and only 59 per cent claimed to have made provision for the supervision of study. Indeed, the only unity of practice among these schools is found in departmental organization, promotion by subject, and the introduction of certain forms of manual and household arts and of drawing and music; and all of these are modifications that had been made in many school systems before the junior high school plan, as such, was known. Yet these changes and a change of name constituted the only reorganization that had taken place in many of the schools under consideration.

The confusion indicated is by no means confined to the territory covered by the North Central Association. Briggs, in investigations covering the entire United States, found the same confusion everywhere.¹

It can scarcely be doubted that most, if not all, of the authorities claiming to have junior high schools have in recent years made notable changes in their school organization

¹ *Junior High School*, page 58.

and administration — particularly in the organization and administration of the seventh and eighth grades. But, in many of the schools, the changes have certainly not gone far enough to warrant giving to the modified unit a new rank and a new name. As the writer of the North Central Association report expresses it:

Precisely what constitutes a junior high school (or anything that closely approximates it in fact) is a difficult question to answer. . . . Evidence is strong that, almost in scores of cases, the alleged reform school plan has consisted primarily of an altered name. Possibly the departmental organization of subject matter and teaching, possibly promotion by subject, and possibly one or two other desirable, but inconspicuous and not vital, changes have been made; but there is little to show that such schools have modified the purposes, the program of studies, the spirit, the methods, or the internal administration of the older type of school. . . . In short, it seems certain that altogether too many school systems are deceiving themselves with names, are mistaking the husk for the kernel.¹

What, then, is a true junior high school? Many definitions have been formulated. None, perhaps, is wholly satisfactory. The following are among the best that have come under the author's observation. Dr. Charles H. Johnston says:

The junior high school is the name we have come to associate with new ideas of promotion, new methods of preventing elimination, new devices for moving selected groups through subject matter at different rates, higher compulsory school age, new and thorough analysis of pupil populations, enriched courses, varied . . . curriculum offerings, scientifically directed study practice, new schools for all sorts of educational guidance, new psychological characterizations in approaching the paramount school problem of individual differences, new school year, new school day, new kind of class exercise, new kind of laboratory and library equipment and utilization, and new kinds of ultimate community service.²

¹ North Central Association, Bulletin, pages 10 *et seq.*, 1919.

² *Educational Administration and Supervision*, Vol. 2, pages 413 *et seq.*

Obviously, Dr. Johnston is here describing a vision and not a reality.

The North Central Association Commission on Secondary Schools said, under date of March, 1919 :

A junior high school is a school in which the seventh, eighth, and ninth grades are segregated in a building (or portion of a building) by themselves, possess an organization and administration of their own that is distinct from the grades above and the grades below, and are taught by a separate corps of teachers. Such schools, to fall within the classification of junior high schools, must likewise be characterized by the following :

1. A program of studies decidedly greater in scope and richness of content than that of the traditional elementary school.
2. Some pupil choice of studies, elected under supervision.
3. Departmental teaching.
4. Promotion by subject.
5. Provision for testing out individual aptitudes in academic, prevocational, and vocational work.
6. Some recognition of the peculiar needs of the retarded pupil of adolescent age, as well as special consideration of the super-normal.
7. Some recognition of the plan of supervised study.¹

In the course of an article published in the *Educational Review* in 1919, T. W. Gosling remarked :

The purpose of the junior high school is to offer a program of studies which shall be suited to the varying needs of boys and girls in their early adolescence; to take into account the individual differences among boys and girls; to assist boys and girls to develop right attitudes toward life and its problems; to assist them in discovering and developing their natural aptitudes; to guide them carefully by a wise discipline through the trying time when they are passing from the period of control imposed by others to the period of self-control; to take into account their budding idealism and their emerging religious concepts; to give them opportunities for expressing their social instincts in helpful and inspiring service; to correct physical defects and to build up habits of clean and healthy living;

¹ North Central Association, Bulletin, page 4, 1919.

to acquaint boys and girls in an elementary way with the social, the economic, and the political problems which they must soon face in the world outside of school; to inculcate in them both by theory and by practice the principles of good citizenship; to induce as many as possible to go on with their education in higher schools; and to give to those who must take up at once the toil for daily bread a good start by way of special, though elementary, vocational training. In brief, the purpose of the junior high school is to be a friend of the adolescent boy and girl by giving them a full, rich, and joyous life, — full and rich and joyous in the present and for that very reason full and rich and joyous in the days and the years to follow.¹

In the opinion of the present writer the junior high school may be defined as a school unit developed in the United States within recent years and designed to furnish to all pupils, between the ages of twelve and fifteen years approximately, (1) continued common education on high elementary levels, and (2) the beginnings of a differentiated or secondary education adapted to each pupil's individual needs. By providing a program of studies extensive in scope and by making use of methods of instruction and training that are grounded in the contemporary interests and concrete experiences of boys and girls of the early adolescent period, the new school seeks to mediate between strictly elementary school work and methods and the more specialized contents and processes of the senior high school and of the workaday world. To this end the new educational unit endeavors to organize its activities so as to retain a larger proportion of pupils in the school for a longer period than has been customary in the past; to give to them an appreciative notion of the world and its work in all of its diversified forms and in respect to its larger human relationships; to assist them to explore their own capacities, interests, and aptitudes, and

¹ "Educational Reconstruction of the Junior High School," *Educational Review*, Vol. 57, pages 377 *et seq.*, May, 1919.

to choose, at least tentatively, a course of procedure that gives promise of yielding for them the greatest amount of happiness and, for society, the greatest and most effective service; and, finally, to furnish them such a training as will function ultimately in the career of their choice. To accomplish this program, the new unit most frequently makes use of grades seven, eight, and nine in the school system.

THE NAME OF THE NEW SCHOOL

The use of the name Junior High School is by no means uniform. In certain places, names hallowed by tradition and possessing a particular significance to the community have been applied to schools that embody every feature of the reform and that are, in reality, junior high schools. *Francis E. Willard School*, *Roosevelt School*, *J. W. Smith School*, are examples of names that have a particular social significance. Other names that have been used to indicate a reorganization on the junior high school plan are *Departmental School*, *Grammar School*, *Sub-High School*, and *Higher Primary School*.

In the Western and Middle Western states, where the new school first gained popular recognition and where historical precedent holds less firmly, the expression Junior High School has been generally adopted. In the East, where for generations the terms Intermediate Grades and Grammar Grades have been employed to designate divisions of the elementary school, the name Intermediate School is more commonly found. In many instances, too, the name Junior High School seems to be preferred if the school includes three grades — the seventh, eighth, and ninth; while the name Intermediate School is more likely to be chosen if the reorganization involves nothing above the eighth grade.

It is doubtful if any single name will ever be generally adopted for schools operating under the junior high school plan.

In some quarters the trend seems to be toward the name Intermediate School. Detroit and Buffalo have recently adopted this name, and Boston also employs it. At Jackson, Michigan, a town of sixty thousand inhabitants, two new buildings of ultra-modern design and equipment have recently been erected at an approximate cost of \$300,000 each, and the words "Intermediate School" have been conspicuously inscribed upon their façades. Saginaw, Michigan, has likewise chosen this term for its new schools. The advocates of this name say that to give the new school the title Junior High School is to suggest that its prime function is to prepare pupils for a senior high school; that the term invites the officials of the senior high school to dominate the work and spirit of the new school; that it causes young pupils to have too marked a sense of social and intellectual superiority, and that it encourages them to copy the ways of older pupils; and, finally, that the name hampers the recruiting of desirable teachers for the seventh, eighth, and ninth grades, by making them conscious of an implied inferiority of position. Moreover, the friends of the name Intermediate School declare that this name best suits the school because it is truly intermediate in character, standing as it does midway between the elementary school and the senior high school.

On the other hand, the name Junior High School is strongly entrenched and widely advertised. It appears in the literature of the reform and has the advantage of a certain novelty. St. Louis, Rochester, Cincinnati, Cleveland, Duluth, Grand Rapids, all the towns of California, and scores of other places abide by the name Junior High School. A. P. Jones, writing in the *School Review*, advocates the use of the name in the following words:

. . . It hardly seems fair to emphasize in the name itself a purpose that is incidental at best and erroneous for a considerable

number of pupils. The name Junior High School is better chiefly because it itself appeals to the young adolescent more strongly than does the term Intermediate School. It is an end in itself; it sounds better to the boy and girl; it lends itself better to the formation of athletic teams, literary societies, and other school activities; it is easier to develop a feeling of pride and responsibility in a junior high school than in an intermediate school. In a word, it fulfills in itself better the purpose of the organization — that of meeting individual needs.¹

This opinion, so well considered and so admirably expressed, represents substantially the views of the present writer.

THE JUNIOR HIGH SCHOOL NOT A PART OF THE SIX-YEAR HIGH SCHOOL

The practice of designating the lower half of a complete six-year high school as a junior high school adds to the confusion of terminology. Strictly speaking, a six-year high school does not include a junior high school. The six-year school is an integer by itself, although it may be subdivided in such a manner as to warrant the use of the expressions Junior Division and Senior Division. When a single building is employed to house all six grades and a single corps of teachers gives instruction and a single staff of supervisors takes charge of the administration, it is a misnomer to style any portion of the school a Junior High School or an Intermediate School.

Ex-Superintendent C. P. Cary of Wisconsin says in regard to this question :

The six-year high school is an excellent institution, but it is not entitled to call its first three grades a junior high school unless they are a distinctive organization with characteristic program of studies, methods of teaching, and methods of discipline. The reason for this disqualification arises from the fact that the six-year high school

¹ *School Review*, page 115, February, 1918.

almost surely will do little more than to carry down into the seventh and eighth grades the practices which have been associated with the senior high school.¹

No doubt a six-year organization, without subdivisions, is best for many communities. Wherever the entire enrollment in the six upper grades includes fewer than five hundred pupils, it seems unwise to seek to organize the school in two separate units. Something, to be sure, may be lost by not doing so; something, on the other hand, is certainly gained by not doing so. With an average of fewer than one hundred pupils to a grade, little opportunity can exist for providing, economically, any considerable amount of elective work in the curriculum; or for grouping pupils into sections in accordance with their special abilities; or for furnishing the school with simple equipment for carrying on laboratory, shop, and office work; or for utilizing the auditorium, gymnasium, and playgrounds in an effective manner; or for developing the types of discipline, school spirit, and interest in collateral activities that are most desirable. Hence the conclusion seems to follow that the six-year high school is the best type of organization for small cities and towns and for rural communities that have consolidated schools.

On the other hand, opinion seems to hold that it is a serious mistake for the larger cities and towns to reorganize their school systems on the basis of the six-six plan. In these larger places there are sufficient numbers of pupils who can be brought to a common center to make the organization of separate and distinct junior high schools defensible. Where such is the case, evidence is not wanting to show the wisdom of this organization.

¹ Eighteenth Biennial Report of the Department of Public Instruction, Wisconsin, page 24, 1918.

CONCLUSION

Finally—to sum up the answer to the question, What is a junior high school?—it may be said that a junior high school is a school that comprehends the following factors :

- (1) A separate organization of the seventh, eighth, and ninth grades, or of at least two of these grades.
- (2) A separate building in which to house these grades.
- (3) A separate staff of teachers and supervisory officers to administer the work of these grades.
- (4) A program of studies differing greatly from the course of study to be found in the like-numbered grades of the traditional school in America.
- (5) A partial or complete departmental organization of subject matter and teaching.
- (6) The organization of a limited number of curricula, each containing groups of constant and of variable courses.
- (7) A definite, effective plan of educational and vocational guidance, definitely and effectively administered.
- (8) Certain elective studies, to be chosen by pupils under guidance.
- (9) Socialized recitation periods.
- (10) Supervised study periods.
- (11) Promotion by subject.
- (12) Methods of instruction differing notably from the methods employed in the grades above and the grades below.
- (13) The organization and administration of student activities in accordance with the needs and interests of adolescent pupils, regardless of the practices prevailing in the grades above or below.
- (14) The organization of the school year, the school week, the school day, and the school hour in such a manner as to produce a school discipline, a school spirit, and a

school accomplishment that find justification in and through the principles of psychology, physiology, sociology, and pedagogy, regardless of the bias of tradition, the demands of particularized life callings, and the requirements of the senior high school and colleges.

- (15) The admission of pupils to the school on the basis of what is best for each individual, without undue regard to the conventional school work he has mastered.
- (16) The recognition of individual differences in capacities, tastes, and purposes in the organization and conduct of class work.
- (17) A new name.

CHAPTER TWO

HISTORICAL DEVELOPMENT

THE junior high school movement is the result of an older and a much more comprehensive educational movement. Viewed in this way, it may be traced far back into the past. Comenius (1592-1670) and Rousseau (1712-1778) both advocated reforms that embodied elements which find support in the reorganization plans of the present day — Comenius, on the side of external forms; Rousseau, on the side of internal practices and spirit.

To Comenius may perhaps be attributed the first formulation of a plan of school organization based upon the six-year unit. His plan comprised:

- (1) The Infant School ("School of the Mother's Knee"), including the years one to six.
- (2) The Vernacular School (for pupils with a limited school career before them), including the years seven to twelve.
- (3) The Gymnasium (for pupils preparing for the University), including the years thirteen to eighteen.
- (4) The University (affording opportunities for liberal culture), including the years nineteen to twenty-four.
- (5) The College of Light (providing facilities for scientific investigation and professional training), including the years twenty-five to thirty.

The influence of Rousseau on modern education centers in his demand for the development of individuality and naturalness in pupils; the recognition of individual differences in capacities, tastes, and achievements among them; the appeal to interest rather than to fear in giving instruction; and stress upon subject matter relating to real life rather than upon a formal treatment of more or less abstract material.

In 1821 the Boston English Classical School was established upon principles that agree with some of those that underlie the junior high school of today. This Boston school provided a three-year course designed for boys who had completed a five-, six-, or seven-year elementary course and were desirous of fitting themselves, not to enter college, but to take their places in the business world at about the age of fifteen or sixteen years. The age of admission to the school was fixed at twelve years. Thus the Boston school rested, as does the junior high school, upon an elementary school course of less than eight years, and offered a three-year course covering the period from twelve to fifteen years of age. Like the junior high school, it was complete in and of itself, and found its justification in the needs of the local community.

BEGINNINGS OF CHANGE IN THE HIGH SCHOOL SYSTEM

Near the close of the nineteenth century, the reform movement began its rapid swing forward. The exact date for marking its rise has not infrequently been set for the year 1888, when President Eliot of Harvard, in an address delivered before the Department of Superintendence of the National Education Association, sketched a plan of reform that was extensive in scope and specific in its recommendations. President Eliot's chief concern was for the college student, and he approached the topic of educational reorganization with the interest of the collegian first in his mind. Particularly did he plead for such reforms as would shorten the periods of academic and professional study and permit a college graduate to enter one or two years earlier upon his active career. Among the specific reforms which he advocated were: the elimination of many topics from the traditional curriculum and the curtailment of others; the shortening of the long vacation periods; the lengthening of the

school day; the better training of teachers; and the reorganization of the administration and methods of the school.

Report of the Committee of Ten (1893)

Dr. Eliot's criticisms and recommendations excited much discussion, and in July, 1892, the National Education Association appointed the now famous Committee of Ten. This Committee had authority to arrange "a conference of the school and college teachers of each principal subject which enters into the programs of secondary schools in the United States and into the requirements for admission to college."¹

The Committee of Ten made its report in 1893, and its declarations have exerted a profound influence upon all later educational reforms in the United States. In particular, they have had a marked influence upon the junior high school.

Certain conclusions of the Committee of Ten are especially pertinent to the theme of this book. Among these are the following:²

(1) It is feasible and desirable that all of the principal subjects (except Greek) which are offered in the secondary schools should be begun in the grades before the high school.³

(2) In organizing and teaching these subjects no differentiation should be made in content or method for any class of pupils, but each "should be taught in the same way and to the same extent — no matter what the probable destination of the pupil may be or at what point his education is to cease."

(3) "For the purposes of general education, one study is as good as another," and "the choice of subjects in secondary schools is a matter of comparative indifference."

¹ Report of the Committee of Ten, page 3.

² *Ibid.*, pages 14, 17, 45, 51, 56, 57.

³ The subjects mentioned included Latin, Modern Foreign Language, English, Mathematics, Physical Science, Natural History, Geography, and the Social Sciences (History, Civil Government, and Political Economy).

(4) "It is impossible to make a satisfactory secondary school program, limited to four years and founded on the present elementary school subjects and methods. In the opinion of the Committee, several subjects now reserved for the high school, such as algebra, geometry, natural science, and foreign languages, should be begun earlier than now, and therefore within the schools classified as elementary; or, as an alternative, the secondary school period should be made to begin two years earlier than at present, leaving six years instead of eight for the elementary school period."

(5) "The secondary schools of the United States, as a whole, do not exist for the purpose of preparing boys and girls for colleges. Their main function is to prepare for the duties of life that small proportion of all the children in the country who show themselves able to profit by an education prolonged to the eighteenth year, and whose parents are able to support them while they remain so long in school."

Taken as a whole, the report of the Committee of Ten may be regarded as a forward-looking report. It lent its approval to remedial suggestions which later became vital factors in the organization of the junior high school. Thus, it subscribed to the principle of an enriched program of studies for secondary schools; the reduction of the elementary school to six years and the extension of the secondary school to six years; the recognition of individual interests and ambitions among pupils; the assignment of adequate, though not uniform, class-time allotments for the various subjects of study; and the adoption of departmental teaching below the ninth grade.

Report of the Committee of Fifteen (1895)

The second notable committee to consider reforms was the Committee of Fifteen. This Committee, appointed by the Department of Superintendence in 1893, reported in 1895. Only one section of the report bears directly upon topics

centering in the junior high school. This is the one entitled "The Correlation of Studies in Elementary Education."

In some respects the Committee of Fifteen was less liberal than the Committee of Ten. While it favored adding manual arts for boys and household arts for girls to the elementary school curriculum, it opposed the organization of the so-called practical courses for pupils whose school careers were likely to terminate with the elementary school. Again, this Committee, revoking the judgment of the Committee of Ten, went on record as not in favor of reducing the time allotment of the elementary school from eight years to six. However, it did recommend "that in the seventh and eighth years a modified form of algebra be introduced in place of advanced arithmetic, and that in the eighth year English grammar yield place to Latin." It also favored departmental teaching in the seventh and eighth grades, and a more flexible plan for promotion throughout all the grades.¹

The Report of the Committee of Fifteen is somewhat ponderous in its discussions and never had the practical influence of the report of the Committee of Ten. Nevertheless, the combined influence of these two reports led to a more or less general adoption of the principles of departmental organization of teaching and of promotion of pupils by subjects in the seventh and eighth grades considerably before the junior high school, as such, was conceived.

*Report of the Committee on College Entrance
Requirements (1899)*

The Committee on College Entrance Requirements was the next committee to take up the task of reform. This Committee, appointed by the Department of Secondary Education of the National Education Association in 1895, followed a slightly different avenue of approach and made

¹ Report of the Committee of Fifteen, pages 15, 87, 95, 97.

its final report in 1899. So far as its findings bear upon the question of the external reorganization of the grades, this Committee went counter to the recommendations of the Committee of Fifteen and agreed with the Committee of Ten. It stated, "In our opinion, it is important that the last two grades that now precede the high school course should be incorporated in it."¹ All instruction in these two grades, however, was, wherever practicable, to be under the supervision of the high school teacher.

There is nothing in this report that forecasts a junior high school organized as a separate unit and having a distinct function of its own. What it foreshadows is a longer period of time in which to provide a secondary school training of the traditional sort; that is, a six-year high school with its counterpart, a six-year elementary school.

DEVELOPMENT FROM 1890 TO 1910

But meanwhile forces tending to bring about modification in secondary education in European countries were conspicuously at work, and these gave support to the reform movement in America. In Germany, the quarrel between the advocates of the gymnasial training and that offered by the *Realschulen* led to the calling of a notable school conference in 1890, the outcome of which was favorable to the progressive party. During the same period, France was going through a similar struggle for reform. There, the Latinists and the scientists, the conservatives and the liberals, the formalists and the modernists, sought each their own advantage. The result was that a sweepingly liberal reform was carried through, and administrative changes resembling those being advocated by the progressives in America were adopted.

¹ Report of the Committee on College Entrance Requirements, page 23.

The American progressives desired a genuine reform in aims, content, methods, and spirit. President William R. Harper, of the University of Chicago; President Nicholas Murray Butler, of Columbia University; Professor Paul H. Hanus, of Harvard University; Professor John Dewey, of the University of Chicago; and several of the leading superintendents and principals of schools, endorsed this policy. These men, imbued with a true missionary spirit, pushed the reform program forward on every appropriate occasion. The result was that the decade from 1900 to 1910 became a notable one in the annals of American education. During this period several new committees were appointed to investigate and to report. Among these were:

- (1) The Commission of Twenty-one appointed under the direction of the annual conference of the University of Chicago in 1903, President Harper being chairman.
- (2) The Committee on the Cultural Element and Economy of Time in Education, appointed by the National Council of Education in 1907, President Baker of the University of Colorado being chairman.
- (3) The Committee on the Advisability of the Six-Six Plan, appointed by the Department of Secondary Education in 1905, Dr. E. W. Lyttle, State Inspector for High Schools in New York, being chairman.

One and all of these committees subscribed to the principle of elimination from the course of study of many worn-out and unpractical subjects; a better articulation of the work offered in the several years; and a complete reorganization of the form of the public school system on the basis of a six-six arrangement of grades. The Committee reports were presented from time to time as late as 1911. In none of them, however, does it appear that the idea of subdividing the six-year high school into two wholly differentiated parts entered into the deliberations of the committees or found

expression in their formulations. It was the six-year high school that was advocated.

Nevertheless, the modified six-six plan was quietly developing. As early as 1896, the seventh and eighth grades of the public schools in Richmond, Indiana, had been housed in a separate building, centrally located, and the administration of the school had made use of the departmental plan of instruction, promotion by subject, and the awarding of credits for work satisfactorily performed. The program of studies was also divided into three distinctive curricula. In Kalamazoo, Michigan, the practice of segregating the entire eighth grade of the city in one building was begun before 1890; and in 1902 the ninth grade was combined with the eighth in what was styled a "departmental school." In 1904 the city schools of Muskegon, Michigan, were organized on the following plan: the first six grades in municipal ward buildings; the seventh grades of the entire city in a departmental school; the eighth and ninth grades in the high school annex; and the tenth, eleventh, and twelfth grades in the high school proper. Nor were attempts lacking considerably before 1910 to differentiate the work in the unified six-year high schools in order to meet the requirements of particular types of students. For the most part, the differentiations took the form of two distinct curricula — the one preparatory to college, the other preparatory to life. Such expressly advertised curricula were inaugurated at Chicago in 1894, and at Providence and Saginaw in 1898. The charge of "class distinctions" was soon heard, however, public dissatisfaction developed, and the reform was abandoned in all three places.

DEVELOPMENT FROM 1910 TO THE PRESENT

In the third decade of the systematic reform movement, the junior high school, in name and in fact, definitely emerged

into public view and public favor. Beginning with 1910, or a little earlier, emphasis shifted from the clear-cut six-six plan to a plan of reform within the reform. This was variously expressed as a six-three-three arrangement; a six-two-four arrangement; a six-one-five arrangement; a six-two-two-two arrangement; a six-one-two-three arrangement; a six-five arrangement; and several other groupings of time periods. Cities and towns seemed to vie with each other in the rapidity of their reforms and the novelty of their changes. In part, the reorganizations are to be explained by the necessity for providing suddenly for the increased numbers of pupils who early in the twentieth century crowded into the secondary schools; in part, by the influence of the scientific movement in education, with its stress upon experimentation; in part, by the influence of the recommendations previously made by the reform committees; in part, by the weight of newly formulated principles of psychology, pedagogy, and sociology; and, in part, by the necessity of providing a democratic education for all the children of a democratic nation, in accordance with the wishes and demands of that nation's voters and taxpayers.

From 1910 to the present day, committees of national importance have continued to deliberate upon the reform of secondary education and to make formal reports and recommendations. One of the first was the Committee of Nine. This Committee was appointed by the Department of Secondary Education of the National Education Association in 1910 and made its report on "What the High School Should Accomplish," in 1911.¹ This Committee made the following declarations:

(1) It is the duty of the tax-supported high school to give to every student instruction carefully designed to return to society intelligent, able-bodied, and progressive citizens.

¹ National Education Association, Proceedings, 1911, pages 599 *et seq.*

(2) The high school period is the testing time, the time for trying out different powers, the time for forming life purposes. Consequently, the opportunity should be provided for the student to test his capacity in a fairly large number of relatively diverse kinds of work.

(3) In the high school the boy (or girl) may very properly make a start along the line of his chosen vocation, but a final choice should not be forced upon him at the beginning of that career.

(4) Only when the liberal and the vocational elements of training are blended "does the liberal receive its social significance and importance. . . . In other words, the boy who pursues both the liberal and vocational sees the relation of his work to the work of others and to the welfare of society, whereas the liberal without the vocational leaves him a mere spectator in the theater of life, and the boxes of this theater are already overcrowded."

(5) Mechanical arts, agriculture, or household science should be recognized as rational elements in the education of all boys and girls, and especially of those who have not as yet chosen their vocation. By means of exclusively bookish curricula false ideals of culture are developed. A chasm is created between the producers of material wealth and the distributors and consumers thereof.

(6) The high school should in a real sense reflect the major industries of the community which supports it.

(7) Our traditional ideals of preparation for higher institutions are particularly incongruous with the actual needs and future responsibilities of girls. It would seem that such high-school work as is carefully designed to develop capacity for, and interest in, the proper management and conduct of a home should be regarded as of importance at least equal to that of any other work.

While the Report makes no mention of a junior high school but speaks always of "the high school," it must be remembered that the Department of Secondary Education which appointed the Committee had, two years earlier (1909), approved the plan of a six-year high school. Hence the recommendations of the Committee of Nine relate as truly to the seventh and eighth grades as they do to the grades

above, and these recommendations establish principles upon which the curriculum of the junior high school is, in part, builded.

In 1911, shortly after the Committee of Nine presented its report, the Commission on the Reorganization of Secondary Education was organized to carry forward the reform program. This Commission, headed by Clarence D. Kingsley, State Supervisor of High Schools for Massachusetts, is patterned after the organization of the Committee of Ten. Sixteen sub-committees dealing with particular aspects of the reform question constitute the large working force which concerns itself with details. The chairmen of these sixteen committees, together with ten members selected at large, constitute a reviewing committee whose function is to edit and approve the reports of the various sub-committees.¹ The commission on the Reorganization of Secondary Education has been at work since 1912, and has approved and published fifteen reports.² In its bulletin, "Cardinal Principles of Secondary Education" (1918), the organization of the six-year high school on the basis of the subdivided three-three

¹ For membership, see Appendix.

² These reports are published by the U. S. Bureau of Education and include the following:

- 1915, No. 23, The Teaching of Community Civics
- 1916, No. 28, The Social Studies in Secondary Education
- 1917, No. 2, Reorganization of English in Secondary Schools
- 1917, No. 49, Music in Secondary Schools
- 1917, No. 50, Physical Education in Secondary Schools
- 1917, No. 51, Moral Values in Secondary Education
- 1918, No. 19, Vocational Guidance in Secondary Education
- 1918, No. 35, Cardinal Principles of Secondary Education
- 1919, No. 55, Business Education in Secondary Schools
- 1920, No. 1, The Problem of Mathematics in Secondary Education
- 1920, No. 26, Reorganization of Science in Secondary Schools
- 1920, No. 35, Agriculture in Secondary Schools
- 1921, No. 5, Part-time Education of Various Types
- 1922, No. 5, Reorganization of Home Economics in Secondary Schools
- 1922, No. 23, High-School Buildings and Grounds

plan is recommended. Several of its special reports likewise take cognizance of this plan.

Several other committees, more or less local in character, have likewise dealt with the problem of reorganization during the past eleven years, and these have generally adopted principles of a similar nature to those held by the Committee of Nine.

In the meantime, junior high schools have developed apace. Just which city may claim the honor of establishing the first one is not clear. Richmond, Indiana, had a separate organization for the seventh and eighth grades as early as 1896, and the Richmond school administration had adopted several of the features which are now generally regarded as essentials of a junior high school. Possibly many other cities and towns had somewhat modified their school organizations as early as Richmond. But it is not until about the years 1909 and 1910 that any well-planned, conscious effort to organize schools on a clear-cut six-three-three basis appears to have been made anywhere in America. In 1909, Berkeley, California, reorganized its schools on this plan. Grand Rapids, Michigan, opened its first junior high school in 1911. Los Angeles took the step in 1911. New York adopted the six-two-four arrangement as a state-wide plan in 1910, styling the reorganized seventh and eighth grades, the "intermediate school." Columbus, Evansville, and several other cities reorganized their systems at about the same time. Taking the figures up to and including the year 1917, Briggs found that 272 towns claimed junior high schools, established as follows: ¹

¹ *The Junior High School*, page 32.

YEAR	NUMBER
Before 1900	2
1905	1
1907	1
1908	3
1909	3
1910	11
1911	9
1912	21
1913	27
1914	44
1915	76
1916	68
1917	6
<i>Total</i>	<u>272</u>

Davis, reporting on the investigation made by the North Central Association in 1918, found 293 cities in North Central territory which claimed junior high schools. According to his report, these schools had been established thus: ¹

Before 1916	160, or 54.61 per cent of all
In 1916	61, or 20.82 per cent of all
In 1917	72, or 24.57 per cent of all

Rorem, in making his compilation from studies covering the same period, gives the entire number of junior high schools in the United States as 354; ² while the United States Bureau of Education states the number as 557 for the year 1917-1918, ³ and, referring to the situation in 1923, says:

Today junior high schools are numbered by the hundreds. Five hundred and seventy-five cities having a population of 2500 and over report such schools. If all cities having such schools had reported, there would without doubt be several hundred more to

¹ Proceedings, North Central Association, 1918, Appendix.

² *The Junior High Clearing House*, pages 37 et seq.

³ *Statistics of Public High School*, Bureau of Education Bulletin, 1920, No. 19, pages 111-112.

add to this list. Just how many there are in places of less than 2500 population is not known, but there are at least several hundred.¹

Whatever be the exact figures, it is certain that since 1918 junior high schools have developed at a rapid rate.

SUMMARY

Thus, by way of summary, up to the present time the reform movement which has produced the junior high school has passed through three periods of development and may be viewed from three standpoints.

(A) Regarding Purposes

(1) From 1890 to 1900, the aim was to shorten the period of training for the college student who is preparing to enter professional life.

(2) From 1900 to 1910, the aim was to hold more pupils of all types in the upper grades of the elementary school and in the high school, and particularly to make vocational provision for those who intended to go to work.

(3) From 1910 to the present time, the aim has been to discover the individual characteristics of pupils and to provide a more adequate education for each particular child in whatever grade of the school he may happen to be.

During the first period, the movement was guided and influenced largely by university administrators; in the second period, by public school authorities; in the third period, by professional students of pedagogy.

(B) Regarding Methods

(1) From 1890 to 1900, the movement consisted of destructive criticism of the old order and vague reachings for something better to take its place.

¹ *Secondary Education in 1921 and 1922*, Bureau of Education Bulletin, 1923, No. 12, page 21.

(2) From 1900 to 1910, the movement was characterized by the formulation of positive educational theories and of plans for putting them into operation.

(3) From 1910 to the present time, the movement has concerned itself with the practical application of theories, the analysis of processes, and the modification of administration in accordance with the results obtained. In other words, the method of school experimentation was adopted.

(C) Regarding Content

(1) From 1890 to 1900, interest and discussion centered in topics relating to the external forms of school reorganization.

(2) From 1900 to 1910, interest and discussion centered in topics relating to the internal administration of the school and the individual requirements of the pupils.

(3) From 1910 to the present time, interest and discussion have centered in the subject matter, the methods of teaching, and the spirit behind the work.

CHAPTER THREE

ADOLESCENT CHARACTERISTICS AND THEIR IMPLICATIONS

THE junior high school has been developed in order to serve better the real interests and needs of the American youth. It is pertinent therefore to review briefly the conspicuous characteristics of boys and girls of the early adolescent age and to inquire what implications these characteristics have for the pedagogical reformer.

OLD ASSUMPTIONS AS TO ADOLESCENCE

The older notion respecting adolescence was that puberty, the most fundamental element that enters into the problem, was of nearly uniform occurrence among youths of both sexes wherever like racial and geographical factors operated; that it occurred, for the most part, at about the time a youth was fourteen or fifteen years of age; and that it called for no special consideration so far as the organization and the administration of schools was concerned. Pubertal rites and ceremonies had, to be sure, been peculiar and conspicuous practices among many peoples from earliest times, but their use rested upon superstitious beliefs that had no special validity or significance for modern peoples. Whatever initiation or guidance was needed for a boy or girl entering upon the adolescent stage of development, it was thought, could be readily given, as of old, in a brief period of time and without any special preparation being made for doing so.

NEWER VIEWS AND DEDUCTIONS

Extensive studies recently made in respect to adolescence reach conclusions that are considerably at variance with the older notions. According to these studies, pubescence is not the nearly uniform thing it was formerly thought to be,

but is a very uncertain event in the lives of youths. Its appearance varies, in point of time, with many factors — race, environment, climate, occupation, health, and possibly other elements. Its range is from nine years or earlier to eighteen years or later, with the mode for girls being about the age of twelve or thirteen and for boys one year older. While physiologists and psychologists are not wholly in accord as to the beginnings of sex influences in character development, nor as to the extent and suddenness of the mental, emotional, and volitional changes wrought in individuals when they make their visible appearance, nevertheless, as Koos phrases it, “there are few who will take exception to the statement that there is a pulse of sex interest near the time of (the) appearance . . . of the external signs of puberty . . . [although] there can be little doubt that such measurements as have been made of the traits of childhood indicate no large sudden spurts in mental abilities comparable with those found in the realm of the physiological.”¹

Perhaps for the purposes of this book the most significant conclusion from the recent studies is that puberty, with all its concomitant effects upon the intellectual, emotional, and volitional nature of the youth, begins, on an average, nearly *two years earlier than was formerly generally supposed*; thus, if the three years from twelve to fifteen be considered as a unit, the majority of youths will have reached sex maturity within that transition period.²

GENERAL CONDITIONS OF ADOLESCENCE

While the changes that are wrought in the nature of youths during or about the period mentioned defy exact classification, and while, during this time, each boy and girl

¹ Koos, L. V., *The Junior High School*, pages 58 and 60.

² For a good general summary of the statistical material relating to the subject, see Alexander Inglis, *Principles of Secondary Education*, pages 3-73.

is *sui generis* and conforms, in some respects, to no type that can be mentioned, nevertheless certain general conditions distinguish the period. For the sake of convenience these may be grouped under four headings: (1) physical, (2) intellectual, (3) emotional, and (4) volitional.

(1) *Physical Conditions*

On the physical side the approach and appearance of pubescence are accompanied by notable changes in bodily structure, form, and function. Generally speaking, the period is one of remarkable growth in height and weight, in the development of the vital organs, and in the shape and structure of the bones and muscles. The blood pressure and the blood circulation increase enormously. Not infrequently there are palpitations of the heart, fainting spells, headache, and green sickness. The larynx enlarges and gives rise to a completely altered quality of voice. The appetite is fickle and sleep is unsound. And, as Professor Whipple puts it, "It is tempting, and doubtless justifiable, to suppose that the central nervous system likewise matures unevenly."¹

Concomitant with the appearance and development of these bodily changes usually occur conspicuous modifications of physical traits. There is a bodily restlessness that seeks satisfaction in movement and activity. There is a superabundance of physical energy, following the expenditure of which frequently come periods of pronounced fatigue and dull listlessness, with rapid recovery after short periods of rest. There are growing pains caused by the uneven development of bones and tendons. There is an incoördination of muscles, resulting in extreme awkwardness. There is a change in the pitch and quality of the voice. There are

¹ Whipple, G. M., "Psychology and Hygiene of Adolescence," in Monroe's *Principles of Secondary Education*, page 253.

intensifications of the sensory powers. There are sudorific effusions that frequently are mortifying. And fundamental to all of these, there is a sex consciousness and a sex interest that colors every emotion, thought, and action, and reveals itself, in particular, in a novel attraction for members of the opposite sex, in likes and dislikes based upon trivial details of personality, in a tendency to coyness, bashfulness, or bravado in the presence of idealized members of the opposite sex, and in the development of the various stages of sex love.

(2) *Intellectual Conditions*

On the intellectual side likewise the approach and development of pubescence are characterized by conspicuous changes. There is a redirection of sense perceptions and a new interest in particular odors, flavors, sights, and sounds. There is a vividness of imagery, particularly in matters relating to sex. There is an enlarged power of analysis and of reasoning in a truly logical manner. There is a tendency to disputatiousness and to the expression of critical judgments respecting a multiplicity of subjects heretofore little considered. There is an interest in mysticism and forms of thought and expression regarded as being unknown to most other individuals. There is a desire, often amounting almost to a craze, for reading books dealing with adventure, love, and action. There is a keen interest in linguistics and a fondness for acquiring new and unusual words and of making use of them in casual conversation. There is a curiosity about self, and life, and eternal verities that is doubtless never matched at other periods of existence. There is a self-consciousness and a tendency to introspection that results, often, in supersensitiveness, morbidness, and secretiveness. There is an altruistic and idealistic interest in others and in life which is rare in the earlier or later years. There is a fondness for

new relationships, — with persons, things, and forces. And there is, mingled with all the idealistic elements that reveal themselves, a strong attachment for the practical and realistic factors that operate in human affairs.

(3) *Emotional Conditions*

On the emotional side, the approach and appearance of pubescence evidence themselves by deep stirrings of the subjective nature, the feelings, when aroused, fairly choking the individual who seeks to repress them and fairly exhausting the one who unrestrainedly gives way to their surgings. The manifestations of these emotional workings are likely to show themselves in moodiness, unresponsiveness, morbidness, hysteria, laughter, giggling, singing, shouting, dancing, bodily contortions, and numerous other ways. Indeed, the whole gamut of the forms of expression is run. When in the emotional whirl, the individual is likely to be affected by an intense admiration for heroes and a pride in the heroic; by bursts of generosity amounting to extreme self-sacrifice; by a personal desire for renown, honor, and fame; by an eager desire to reform every and all situations and persons who fail to measure up to the standard set by his critical, though immature, judgment; by a display of sympathy for the weak and unfortunate; by an aroused religious sentiment and a spirit of questioning about deity, the universe, and the problems of life and death; by an interest in art and æsthetic expression; by interest in the spectacular and in dramatic representations; and by wishing, wishing, continually wishing for the unrealized, and possibly the unrealizable, satisfactions of the human spirit.

(4) *Volitional Conditions*

On the side of the volitional, the approach and appearance of pubescence are marked by the rise, or accentuation, of

such instincts as the following: gregariousness, venturesomeness, exploration, migration, organization, coöperation, and domination. As in respect to most other adolescent characteristics, these are not the sole possession of youths of this stage of development. Whipple states the situation well when he says:

We do not need to assume that these instinctive responses to the situations of daily life are seen only during or after puberty, or that they are manifested in the same way by all adolescents, or that no other causes conspire to elicit them than the biological upheaval of puberty. The essential thing is that these types of feeling and behavior are normally intensified as the body assumes preparedness for the functions of racial perpetuation. Compared with the relatively self-centered life of the child, the life of the adolescent is shot through with consciousness of self as related to other persons. His outlook is hetero-centric, not ego-centric. His behavior has constantly a social reference. He considers himself in relation to others.¹

So it is that on the social or volitional side, adolescents seek to attain their satisfactions and ends through associations with fellow beings; through the exchange of human sympathies; through giving and receiving expressions of personal and social approval; through journeys and trips of exploration and adventure into realms of knowledge and activity hitherto unfamiliar; through utilizing the powers of organization to form more or less permanent associations and more or less stable institutions; through exercising the power of leadership and of coöperation in order to attain the ends conceived to be desirable; through mounting to desired heights of ambition by the sheer exercise of will and the power of dominance. And yet, through every undertaking and scheme projected by the adolescent, runs the idea of good form, of adherence to the rules of the game as established by the group recognized as possessing the authority, and of a

¹ In Monroe's *Principles of Secondary Education*, pages 272-273.

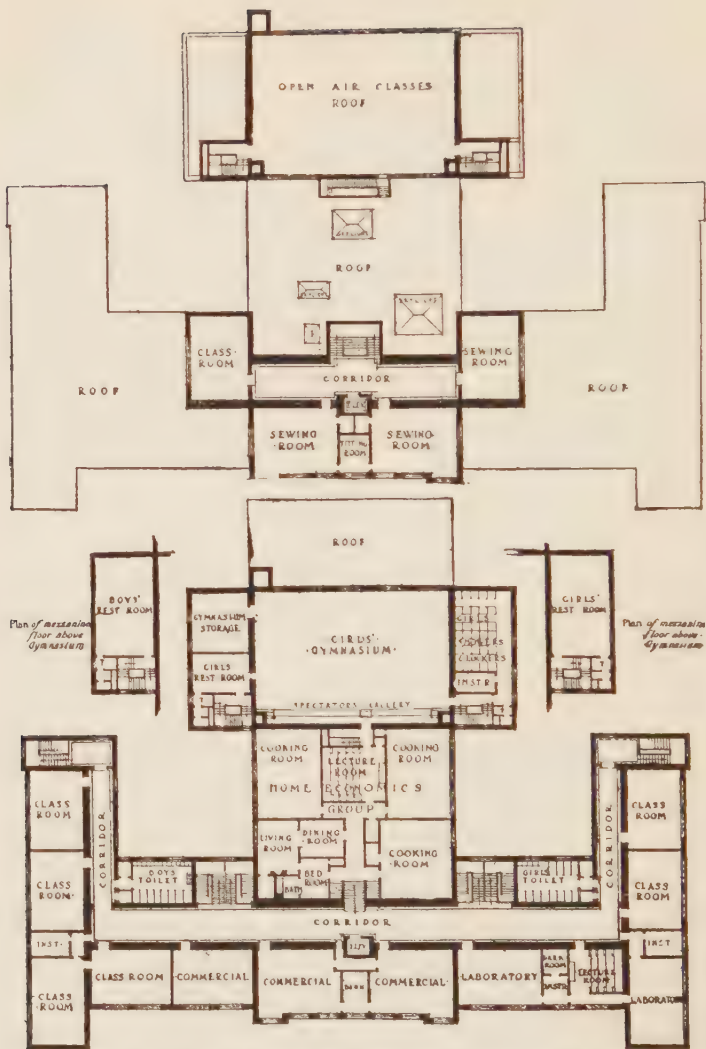
more or less literal adherence to convention when the convention has been imposed.

RAPID DEVELOPMENT THE CHARACTERISTIC
OF THE ADOLESCENT PERIOD

In general, therefore, "adolescence is a period of marked and significant developmental growth — a growth of body and mind."¹ It varies notably in its time of appearance among youths but, for the most part, occurs somewhere between the age of twelve and fifteen. It ushers in a period of life replete with potentialities of many types. It is a period of great promise as well as one of much disquietude. It marks a rebirth of the individual, a flowering of nature, a seedtime of destiny. In the language of the poet, it is the time when youths are "standing with reluctant feet where the brook and river meet." Rousseau says with respect to it: "We are born twice: once to exist and again to live; once as regards the individual and again as a *socius* and as regards the race." The Scriptural admonition, "Ye must be born again," could aptly be applied to it, for surely one is very literally, at this time, born anew.

On its disquieting side, the period is one fraught with many hidden dangers. It is a time when the human organism is torn by conflicting forces; when racial instincts of untold power contend for mastery; when sex urgings rage and call for satisfactions; and when, as the Germans have it, the individual is tossed upon a sea of "storm and stress." It is, moreover, the traditional seedtime for wild oats; the period when "the call of the wild" finds ready responses; the time when personal satisfactions are sought without accepting the responsibilities that rightly inhere in them; and the traditional time for the removal of parental and school control

¹ Whipple, *op. cit.*, page 246.



Second-floor plan (below) and third-floor plan (above) of Junior High School at Buffalo, New York. (By Associated Buffalo Architects. William B. Ittner, Consulting Architect.)

and the induction of the youth into the circle of enlarged personal freedom.

The adolescent period is, therefore, a stage of development in which individual differences among youths are marked and multitudinous. Changes and readaptations are the very essences of their lives. As Crampton, speaking of the period, says :

New mental abilities appear, while others disappear; the type of play changes; new companions are sought; new likings, tendencies, enthusiasms, and emotions make up the whole of life. Old landmarks of life fade and new ones are eagerly sought. . . . The pubertal change leaves the child a wholly different being — different mentally, physically, morally, and ethically from the children in the state just left behind.¹

The fundamental problem which lies before would-be reformers of secondary education — particularly of that part upon which the junior high school is focusing its attention — is to determine, as clearly as possible, what the adolescent changes are; what their relationship to each other may be; what capacities, interests, and powers peculiar to adolescents and near-adolescents exist; and what methods of organization and administration of schools will produce the most valuable results for them. The previous sketch indicates what some of the most important of the adolescent characteristics are. Recent studies seem to indicate clearly that there is a close positive correlation between scholarship and adolescence,² and that wisdom dictates the segregation of adolescent children from the younger children in school, inasmuch as "the approach to the subject matter [is] different for the immature and the mature."

¹ Crampton, C. W., *International Congress on Hygiene and Demography*, 1912, Vol. 3, page 228.

² Crampton, C. W., "Influence of Physiological Age on Scholarship," *Psychological Clinic*, Vol. 1, pages 115-120, 1907.

WHAT THE SCHOOL MUST GIVE TO THE ADOLESCENT PUPIL

The practical school reforms which the analysis of adolescent characteristics seems to suggest as desirable will be discussed in detail in succeeding chapters. However, a brief consideration of some of these implications is appropriate here. Among the suggestions are :

(1) *Attention to the structure, arrangement, sanitation, and equipment of the building.* As yet no particularized standardized form of a junior high school building has been devised. Such may never be desirable. In planning for junior high school pupils, however, the motto might very wisely be: "The best is none too good." To dedicate to their use a structure abandoned for high school purposes because of its inconveniences, insanitation, and general antiqueness is to defeat the very ends for which a junior high school should be established. Attractive physical surroundings have an especially strong influence on pre-adolescent and adolescent youths. Such a building should possess all the features necessary to carry out a program of work suited to the needs of adolescents. What a program of this kind is to include will be considered in detail in a later portion of this book. Both building and program of studies are, however, but means to an end, — namely, that the educational objectives may be realized. The building, therefore, should not be erected on general architectural designs and the program of work be adapted to it, but rather the aims and purposes of the school as an institution should first determine what is to be taught, and this in turn should determine the form and character of the school plant.

(2) *Attention to instruction and training in matters of health.* Personal and social hygiene, including instruction in sex functions and sex abuses, should be a subject of deep concern for all persons dealing with adolescents. Not only

should information regarding the best ways to preserve health be given young people, but they should likewise be so disciplined in the practices which insure health that the information will function in life habits. To this end, provision for systematic training in physical education, gymnastics, and recreation should be made in every junior high school. This ideal, in turn, calls for adequate provision for playgrounds, athletic fields, gymnasiums, swimming pools, rest rooms, physical examination rooms, and doubtless other health agencies, together with a whole staff of health officials, including physical directors, supervisors of recreational activities, medical and dental inspectors, school nurses, and, possibly, other persons.

(3) *Provision for satisfying the migratory instinct.* Among the agencies that can properly be employed to accomplish this end are: the school excursion; school field trips; hikes; and trips for the athletic teams, the debating teams, the musical clubs, and other school organizations. Conducted under proper chaperonage, with appropriate preliminary instruction and guidance and exacting subsequent reports, summarizings, and testings, few activities yield greater educational and moral values than these.

(4) *Provision against overstrain and overfatigue.* Under this heading fall such practical topics as those relating to the length of the class period, the school day, the school week, and the school year; the number and length of intermission periods within the school day; vacation periods; out-of-school study requirements; and similar matters. While no scientifically determined rules have yet been formulated to cover these items, current opinions of enlightened educators seem to suggest the wisdom of the following standards:

Class periods of from thirty-five to sixty minutes.

A school day of five, six, seven, or possibly eight hours, divided into five, six, seven, eight or more class periods.

A school week that shall include the occasional utilization of Saturday for excursions, hikes, games, and other forms of applied work and habit-forming recreation.

A school year that makes provision for the proper use of a portion of the pupil's time during the summer months.

Similarly, enlightened opinion approves the policy of having short intermissions between class periods, with at least one longer rest period after each two or three periods, and only a limited amount of prescribed out-of-school study.

(5) *Sex segregation.* The entire question of sex segregation in the various divisions of the school system is still so completely engulfed in a sea of controversy that little more can be done here than to call attention to the importance of the problem and to mention possible modes of treatment. Simplest of all the solutions is, of course, to make no effort at sex segregation whatever. A second procedure is to segregate pupils in session rooms but not in class work. A third mode reverses the practice just mentioned and segregates pupils in class work but not in session rooms. A fourth plan provides for segregation within limited specified fields of study, but not in others; as, for illustration in science, practical arts work, and agriculture, but not in history, English, and language. A fifth scheme involves a separate building, organization, and staff for both boys and girls throughout the entire period of the junior high school. Much experimenting still needs to be done before positive recommendations can be made, and it is very probable that even then the conclusions will favor practices that shall differ with differing situations.

(6) *Teaching characterized by much enthusiasm and human — i.e., social — interest.* No doubt all truly good teaching is the result, to a large degree, of a winning personality in

the teacher. Nor can it be denied that the human element and the human appeal are dominant factors in the teaching success of most individuals in all types of schools. Nowhere, however, do these two qualities — enthusiasm and the power to arouse human interest through appeals to the humanly interesting — play so important a part as in the instruction of adolescent boys and girls. As Koos puts it: “The dawn of social consciousness which accompanies the arrival of sex maturity is so much a matter of almost universal observation as to leave little doubt in the minds of many thoughtful persons of its establishment as a fact.”¹

And again, “Whatever may be the complex of causes that are urging the quickening of the social consciousness, there can be little doubt of its existence in the early adolescent and there can be little question that it is accelerated by the extensive physiological changes of some of which mention has been made.”¹

Whipple states the thought thus: “In the second, or pubertal and post-pubertal period, i.e., in the secondary school, instruction should take on a more personal and subjective tone and be presented with a strong ethical and social emphasis.”²

(7) *Attention to the art of studying.* Few pupils in school know how to study effectively. They need to be instructed in a manner more satisfactory than is generally done at the present time. In order to accomplish this purpose many forms of so-called supervised study have recently been advocated and practiced in various grades of the school. In some instances these efforts seem to yield gratifying results; in others the work is largely nominal and formal. Possibly continued experimenting will some time yield

¹ Koos, L. V., *The Junior High School*, page 61.

² Monroe, Paul, *Principles of Secondary Education*, page 269.

conclusions that can be formulated into rules of universal application. Such a time has not, however, yet arrived.

The problem of correct supervised study seems to be how to assist pupils sufficiently and yet not too much in preparing their school work. Previous to the time when the junior high school period is reached, continued systematic study in a formal way is rare — and doubtless must be so. After the junior high school period is passed, pupils should, for the most part, be independent in their study. Only when entirely new divisions of the subject matter are to be taken up and new modes of attack are to be required in dealing with them should there, seemingly, be any need for specific detailed direction of study in the senior high school years.

In the junior high school, however, the character of the work, the maturity of the pupils, the purpose of the organization, and several other considerations all suggest the need for a carefully formulated and executed plan of study supervision. Administrators must needs evaluate the merits of the several schemes that are being tested, and choose from among them. The single warning to be given is this: Adopt only a plan that is truly workable under the conditions that necessarily must be imposed in the given school system.¹

(8) *Provision for meeting the needs of accelerants and retardants.* The most conspicuous fact of adolescence is that of individual differences. To seek, therefore, to have any group of pupils — or indeed any two pupils — proceed at precisely the same rate of advancement, cover the same amount of work in precisely the same way, and attain results that are precisely alike is to ignore completely the lessons of psychology. A program of studies that is extensive in scope, some choice of subjects by pupils, and the employment of classroom methods that vary with the nature of the work

¹ For a rather extensive treatment of the subject, the reader is referred to Hall-Quest's *Supervised Study*.

being taught, are practices that have originated in the facts of human unlikeness. These provisions, however, do not suffice. A more discriminating and complete recognition of the principle of individual differences is needed. At least three additional modes of meeting the problem are possible. These are :

- (a) By classifying pupils in the several sections of a given school course on the basis of their intelligence quotients and achievements.
- (b) By varying greatly the extent and nature of the school assignments made for the several pupils in the several class sections.
- (c) By promoting pupils by subjects at such times as their attainments warrant.

Under the operation of the first scheme, pupils should be given one or more of the standardized intelligence tests; be judged by the teaching staff on a basis of actual attainments exhibited in a given subject; and be segregated into accelerated sections, normal sections, and retarded sections. In the interest of social welfare, it is doubtless best that no flaming advertisement of the proposed segregation be made. Neither should studied efforts at secrecy be tolerated. The principle of seeking to secure the greatest good to the greatest number justifies the procedure.

On the other hand, the use of terms that tend to suggest invidious distinctions should be avoided. Careless reference to the "bonehead" section or to the "section of geniuses" should be avoided. Designating the several sections by letters or numbers and making the paths leading from one section to the others always open to all pupils upon equal terms, will do much to allay unfriendly criticism. Moreover, no suitable occasion should be allowed to pass for impressing on pupils and patrons alike the necessary and essential validity of the principle that the recognition of superior

ability and the selection, for specialized services, of those individuals possessed of superior specialized abilities, is of the very essence of democracy.

Assigning school work to individuals on the basis of their ability to accomplish results and permitting each pupil to advance as rapidly as his attainments warrant, or as slowly as his capacities necessitate, are likewise practices wholly in accord with the ideas of true democracy. Moreover, pupil advancement should be made in respect to each subject pursued and not by grouping all subjects together and making promotion depend on standard attainments in each and every one of the branches. It is a truism to say that individuals exhibit different degrees of interest and of progress in different subjects. There is no valid reason for insisting that none shall proceed in the work in which he is really efficient at no faster rate than he is compelled to proceed in the subjects in which he is less efficient.

(9) *Stimulating the emotions through dramatics, motion pictures, pageantry, and other forms of visual appeal.* That the interest of boys and girls in undertakings of these kinds is strong is attested by the numbers who daily flock to the public amusement places where exhibits of the sort are presented. Whether the effects are good or bad depends, to a large degree, upon the character of the thing produced. The instinct that impels young people to suffuse their souls with the impressions derived from theatricals is a wholesome instinct. It arises from a desire to understand human character the better, to know what problems and conditions confront fellow mortals, how they meet them, and what the effects upon them are. Dramatic representations are therefore intensely socializing and humanizing in their influences. Moreover, just as a refinement in the intellectual nature takes place when new and larger intellectual experiences are had, so there occurs a development of the emotional nature

from the crude, coarse, and vulgar into the artistic and æsthetic when new and enriched emotional experiences are had. The time to foster this development is when the instinct for æsthetic culture is strong — a condition that characterizes youth.

(10) *Auditorium exercises.* Oral readings, talks, lectures, impersonations, and other forms of personal appeal, forcefully and sympathetically made in connection with the auditorium or assembly exercises, leave lasting emotional effects upon young people. Perhaps at no time during the school day is so great an opportunity furnished to teachers for establishing lofty ideals of personal and social achievement as is furnished by such exercises as these. No school can afford to omit or neglect them. They must, however, be vital to pupils' interests and experiences. No mere "preachings" that deal with abstract principles, abstractly presented, are likely to do much good. On the other hand, they are apt to congeal the very fountains of idealism and to leave the child callous to the true appeals of the spirit.

(11) *Opportunity to express individuality through various forms of fine and applied art.* Art is distinctively the product of the emotions. It is the result of an effort to realize more or less immediately an ideal that has taken shape in the mind and has had its vital elements deeply colored by the sentiments. To seek to actualize an ideal is to clarify it. Hence, for an individual to devise a plan of procedure involving an ideal and then to execute the plan is to enrich the emotional nature and to strengthen its powers. To sketch a pattern in the draughting room and to execute it in wood or iron in the manual training shops; to work out a recipe by formula in the school pantry and to test it in the school kitchen; to visualize a design in the art room and to produce it in colors in the studio; to acquire an auditory impression of a melody from the graphophone and to trans-

pose it into a new selection on the piano or violin — these surely are accomplishments that are, to a high degree, educative. They likewise are forms of training that make a permanent appeal to the peculiar interests and needs of many types of adolescents.

(12) *Opportunity to satisfy religious yearnings.* The public schools may not, probably, furnish direct instruction in conventionalized religion. If, however, religion is defined as Daniel Webster defined it, as “The tie that connects man with his Creator and holds him to His throne,” then religion is an attribute universal to mankind, and cannot be ignored. Youths of the adolescent stage of development are peculiarly sensitive to religious suggestions and influences. Their curiosity regarding life processes and cosmic forces is an expression of their search for God and for an understanding of the “tie” that connects man with him. For them, in an especial way, “life, exempt from public haunts, finds tongues in trees, books in running brooks, sermons in stones, and good [may it not be said, God?] in everything.”

It follows, therefore, that abundant opportunities should be afforded youths at this period of their development to satisfy this aroused religious interest as fully as possible by means of contacts with nature and the universe; by means of accounts respecting the religious aspirations and customs of the human race in its struggle to make adjustments to nature and the invisible powers; and by means of personal investigations into the realms of the mysteries in accordance with the peculiar bent and needs of each. These considerations give justification for the study of object lessons; natural history; elementary science in all its varied forms; history and literature relating to religious experiences; art; music; and such other subjects as can be made to reveal immutable principles and disclose man's recurring relationships to the forces of the universe.

(13) *Opportunities for æsthetic culture of a personal kind.*

With the beginning of adolescence comes frequently a pronounced sensitiveness to form, arrangement, and color in material things. Peculiarly noticeable are the æsthetic responses to the stimuli of sex. The animal instinct which seeks to display such personal charms as may be possessed is strong. Pride in one's physical strength and development; pride in one's clothing and personal appearance; pride in one's skill in combat and competitive sports — these are some of the forms which the newly aroused instinct takes on. Correlatively, admiration of physical perfection in others, sensitiveness to the styles and manners of associates, a shrinking from contact with the ugly and coarse in nature and among mankind, all find due expression. Here, then, is a most favorable time for inculcating a spirit of reverence for the human body; giving a knowledge of sex hygiene; establishing a repugnance for the obscene, vulgar, and filthy in one's person and one's surroundings; inciting a pride in seeking to express self in accordance with the principles of good form and good morals; encouraging chivalry and gallantry in the treatment of weaker associates.

(14) *Utilization of the social recitation.* The primary purpose of a class meeting in school is not to afford the teacher opportunity to test the knowledge of pupils. It is to expand and clarify ideas already established, add new related ideas, interpret facts, integrate details into a consistent complex, formulate valid and workable principles of thought and action based on the accepted data, apply laws to specific problems, and give pupils practice in thinking, feeling, and acting in typical social situations. As schools are too often conducted at present, the aims just enumerated are not realized. The class period is chiefly a drill period or a testing period, in which the teacher assumes the leading rôle and in which the teacher's ways and methods dominate. The

pupils themselves receive little encouragement to initiate processes or to develop them in accordance with their own interests, powers, and experiences.

In place of the set formal recitation, the class exercise can much more profitably take on the character of a group conversation. Why, indeed, should our school practices differ so notably from the procedure of home, business, and society? If conversation is the means employed in these associations in order to gain and impart a large portion of the information desired and needed, why is not the practice desirable in the schoolroom?

(15) *Segregation of pupils into homogeneous groups.* This principle is repeatedly suggested by the study of adolescent characteristics and perhaps is the most fundamental of all for any truly organized junior high school. The old maxim, "Birds of a feather flock together," is observable in all activities of youth. The common element binds the groups together — common interests, attainments, stages of development. It is unnatural for boys and girls to be attached intimately to groups composed of much older or much younger boys and girls. The feeling of kind is especially strong at the pre-pubescent and pubescent stages. Then the "gang" instinct expresses itself in a conspicuous manner. Clubs, societies, and associations founded on the mutual likes and dislikes of their members are numerous. Frequently the chronological ages of the individuals composing the organizations differ considerably, but rarely is there any great discrepancy in psychological ages. The more mature individuals, as well as the less mature, neither desire membership in the association nor are wanted by the homogeneous group. Such individuals find greater satisfactions in associations of their own.

Accepting these facts as guides, the idea immediately obtrudes that a three-year unit for school organization is

better than a six-year unit; that admission to any given unit of school work should not rest solely upon the psychological or the physiological age of the pupil, but upon a consideration of the facts of both these factors; and that ample provision should be made for youths to exercise extensively the gang instinct. Applied specifically to the junior high school, this principle suggests the need for admitting pupils who are physiologically mature but who, perchance, are psychologically retarded; for segregating pupils into home rooms in which the constituency is determined by likeness of interests and attainments; for encouraging the boy and girl scout organizations; for developing school clubs and societies of various types; for introducing at least a modicum of self-determination and self-government in the school disciplinary agencies; and for making proper provision for accelerants and retardants in arranging and administering class sections.

NEW BRUNSWICK
DEPARTMENT OF EDUCATION

CHAPTER FOUR

FOUR AIMS OF THE REFORM

THE reform movement that has led to the establishment of the junior high school has aimed above all things: first, to humanize the education of adolescents; second, to economize school time; third, to prevent unnecessary withdrawals; and fourth, to further the cause of democracy in education.

FIRST AIM: TO HUMANIZE THE EDUCATION OF ADOLESCENTS

The period from twelve to fifteen years of age is a period of pronounced idealism. Aspirations relating to life careers, life pleasures, life responsibilities are stirring; plans are being formed; habits are becoming established. Of all the periods of school life, this is the one when attention to the refinements of the emotional nature can be made to yield the best results and will guarantee the most lasting benefits. There are various means by which such results and benefits may be secured.

(1) *Excursions into new fields of human interest.* Adolescents are notoriously fickle in their interests. They likewise are excessively curious about new things and are eager to explore them. In order to call forth their interest children should be given abundant opportunities for becoming acquainted with special fields of knowledge and with various trades and skills. To do this demands not only that pupils shall be given freedom to choose subjects for study, but also that no important field of human interest shall be left unknown to them while they are making their selections. If education consists of building expert knowledge and skill upon foundations of general knowledge and skill, then, truly, no more fitting time appears for deepening and strength-

ening these foundations than during the inquiring age of adolescence.

(2) *Introductory courses.* Not only should each important branch of knowledge find a place in the junior high school, but the approach to each new field of thought should be by way of general introductory courses. Psychology has established the law that the mind first takes note of the more conspicuous factors of any given complex, and subsequently lays hold of the more refined elements. It follows, then, that the first consideration given to unfamiliar subject matter should be general in its nature. *Outlooks* and *overviews* are what should be sought, not mastery of specialized and limited portions of the subject. The large and fundamental aspects of a subject should be studied, touched upon lightly, and passed over with no attempt at completeness of presentation. The plea for this ideal is in no wise a defense of inaccuracy and vagueness. It is a plea for learning a few fundamental things well, and postponing specialized courses to a later period in the school course. This principle justifies courses like Introductory Science, General Mathematics, World History, and try-out work in connection with industrial, commercial, and household subjects, in place of the more particularized courses not infrequently to be found in schools.

(3) *A system of guidance.* With all his tendencies toward individualism and his efforts to discover his own elements of strength and weakness through independent choices and procedures, the adolescent is a being who needs the advice and guidance of sympathetic teachers. Only broad-minded, tactful, forceful teachers, who have lived lives filled with rich experiences, who can win the complete confidence and respect of pupils, and who are possessed of a peculiar love for boys and girls, can hope to make much of a success in a junior high school.

(4) *Use of concrete material in teaching.* The employment of the inductive method of approach in presenting unfamiliar subjects, and the use of many concrete illustrations in order to explain the facts and principles involved, are nowhere more important than in junior high school. From the known facts to the unknown ones; from the immediately interesting to the more remotely valuable; from the specific thing to the general concept; from the manifestation of the law to the abstract formulation thereof; — these are but a few of the pedagogical maxims which have been repeatedly advocated but all too commonly neglected. What is needed in the junior high school is not the unmodified use of the methods of the elementary school, with its emphasis largely upon memory work and formal processes of technique; nor is it the adoption of the university custom of stressing scientific and philosophical relationships and the establishment of wholly independent judgments; rather is it the skillful employment of such interrelating data as can be educed from the experiences of the pupils, developed by means of class discussions and textbook contributions, and formulated in general concepts. Such considerations make desirable the organization of instruction on a departmental basis, since the quasi-specialist can alone be expected to have such a command of subject matter as will enable him to correlate and to interpret it so as to make it appear vital to adolescents.

(5) *Projects of actuality.* Adolescent boys and girls are particularly concerned with projects and the problems that arise in connection with them. They care little for the logical organization of studies. School material is of much greater interest and is the better comprehended when it is employed by pupils to help in gaining an end formulated and clearly understood by themselves. The junior high school age is distinctively the age in which the desire to propose and execute projects is strong. School administrators

should, therefore, utilize to the fullest possible degree this powerful natural stimulus, and should furnish material upon which it may express itself in connection with the regular work of the school.

(6) *Personal influence.* In the traditional elementary school, adolescent boys and girls, just coming into their social inheritances in a conscious way, have been unwisely limited in their social contacts with adults. One teacher has usually dominated their lives during an entire school year. Except as teachers of special subjects have visited the classrooms and as supervisors have briefly appeared, pupils have had the impress of no adult influence, save one, from morning to night, week in and week out. This condition is regrettable. However forceful the personality of the teacher may be, a single influence working upon the impressionistic years of youths is weakening. Particularly unfortunate is the absence of the masculine influence.

Adolescents admire physical vigor, moral courage, resourcefulness, strong mentality, and altruistic sentiments. Moreover, the masculine element in the world grips their imagination with power. As the schools are organized at present, too little of the masculine influence is exerted upon them. Rarely is a man of any type found teaching in the seventh and eighth grades of the traditional schools. More rarely is a vigorous, forceful, aggressive man found there. The feminine influence, with all its many excellent qualities, cannot make up the deficiencies inherent in a situation of this kind. What, therefore, is demanded is a balanced staff of men and women, *all* possessed of the essential qualities of personality which make so vital an appeal to adolescent boys and girls.

No doubt all truly good teaching is the result, to a large degree, of a winning personality in the teacher. Nor can it be denied that the human element and the human appeal are

dominant factors in the teaching success of most individuals in all types of schools. Nowhere, however, do these two qualities — enthusiasm and the power to arouse human interest through appeals to the humanly interesting — play so important a part as in the instruction of adolescent boys and girls. As Emerson said, the only way to arouse human interests and enthusiasms among pupils is to exhibit human traits and enthusiasm in oneself. Hence it follows that if these qualities are to characterize the work of the school, they must first be inspired by the teacher. No one, therefore, should be permitted to teach in the junior high school who has not an abundance of physical energy and enthusiasm, and is not possessed of the ability to make the classroom work vital and interesting. This ideal doubtless demands that the so-called socialized recitation shall be the accepted mode of class procedure, and that free discussion by pupils shall be constantly encouraged.

(7) *A program of studies of ample scope.* The traditional program, with its stress upon formal studies, many of which have previously occupied the attention of the pupils, does not meet the demands of twentieth-century educational ideals. If pupils of diverse interests are to be encouraged to continue in school, then subject matter that makes an appeal to their several needs and interests must be provided. This can only be accomplished by a program of studies enriched far beyond the narrow confines of the old-type curriculum.

(8) *Practice in well-doing.* If the ultimate purpose of education is to develop moral character among men, and if moral character consists essentially of acts performed rather than of the ideas and sentiments which give rise to them; then, truly, making provision for practice in well-doing is one of the chief functions of a school. Adolescents or adults may be possessed of the loftiest ideals and an abundance of information and yet fall short of utilizing either group of

forces in an effective way. Knowledge and exercise are but means to ends; the ends are ability to play one's part in the world, and ability to play it well. In other words, the ends to be sought in education are culture and character.

To secure these ends, practice in transforming knowledge into power must be obtained. One of the striking facts revealed by psychology in recent years is that the transformation of knowledge into power and the transfer of power to unnumbered new fields of interest *do not take place automatically*. Unless the process has been suggested by another and the pupil has actually made use of the suggestion, there is no guarantee that the transformation and transfer will ever occur. "As the twig is bent, the tree's inclined." Nor is the twig bent by mere suggestion or word of command. Only as action — repeated action — follows the dictum, does a habit eventuate.

Hence it follows that if full account is to be taken of the adolescent instinct to act in practical ways, provision must be made for action. To this end, various forms of student self-governing agencies, coöperative ventures, pre-vocational skills, citizenship activities, recreational practices, and undertakings that tend to bring out in pupils qualities of leadership and initiative (and likewise of submissiveness to established law and authority) should be afforded boys and girls whenever experience shows they can profit by them. Particularly important are these considerations for pupils of the junior high school age; in part because the native instincts run so strongly in these directions during this age, and in part because many pupils will have no future opportunity for securing it.

(9) *Instruction based upon pupils' experiences.* In childhood, the implanting of empirical facts must necessarily constitute the bulk of the instructional work of the school. In post-adolescence, the logical structure of the subject sug-

gests the method to be followed. But, in the transition stage, neither the presentation of facts as isolated facts nor the development of a subject purely in a rationalistic manner can yield the best results. The experiences of boys and girls are necessarily limited. Their logical faculties are, except in rare instances, incapable of making sustained and involved analyses. The method to be employed with adolescents consists, therefore, of a combination of the empirical and the logical procedures. Appeals made to the immediately interesting, because the immediately interesting is related directly to concrete experience, are most effective in their results. The search among pupils' experiences for foundations upon which to build; the selection of old-new material from the more mature and tested accumulations of the adult world; and the arrangement and adaptation of this material to fit the pupils' needs — these are the peculiar tasks of the junior high school teacher. Correlation of facts with facts, ideas with ideas, experiences with experiences; translation of facts into faculties, ideas into ideals, powers into habits — these are the methods which operate in successful school work everywhere, but which have a particular function in the junior high school.

SECOND AIM: TO ECONOMIZE SCHOOL TIME

This motive, as has been shown, was notably strong at the outset of the reorganization movement. In the last few years, however, the idea has been submerged, if not wholly abandoned. It is a question whether the best interests of society and of boys and girls can be secured by reducing the period of liberalizing education. It is possible that greater benefits may be secured by enriching the program of studies and intensifying the training of pupils throughout the usual number of scholastic years.

That the original notion of economy of time has not been

entirely sidetracked is shown by the introduction of the following resolution, presented by Director George N. Carmen of the Lewis Institute, Chicago, during the session of the North Central Association in March, 1922: "RESOLVED, *That it is the sense of this Conference that the normal period of secondary and college education shall include the time between the ages of twelve and twenty.*"¹ As explained by Mr. Carmen, the resolution contemplated the completion of the junior and senior high school courses and the four years' college course in a period of eight years, thus cutting two years from the time that is now ordinarily required to obtain a bachelor's degree. The resolution failed of passage by a two to one vote.

It is evident from this vote that the idea of economy in point of time still has its champions. In this connection, the following words, spoken by Dean Henry W. Holmes of the Graduate School of Education of Harvard University, are very interesting:

I maintain that we ought not to consider rapid advancement the only possibility. To do so argues poverty of resources and ingenuity. Are we incapable of developing projects for the gifted? . . . Because children are gifted shall we give them the old meager fare and ask them to eat it the faster? "The hungry sheep look up and are not fed." Better rapid advancement than dull hours such as many of us remember; but surely we can devise something better than either.²

THIRD AIM: TO PREVENT UNNECESSARY WITHDRAWALS

It is clear, first, that enormous losses of pupils from the schools take place particularly in grades seven and eight; second, that of those who finish the eighth grade only about one half to two thirds enter the high school; and, third, that

¹ Proceedings of the North Central Association, Part I, page 59, 1922.

² From an address before the National Society for the Study of Education, at Chicago, February, 1922.

of those who enter the high school only about 35 per cent to 40 per cent remain longer than two years.

It is this enormous school loss during the period of early adolescence that the junior high school has set out to reduce.

That many causes operate to bring about the conditions mentioned, no one can doubt. The more common causes alleged to be responsible for the conditions may be analyzed (a) with reference to the situation in the seventh and eighth grades, (b) with reference to the situation in the ninth and tenth grades, and (c) with reference to the general situation found in all four grades.

(A) Causes of Eliminations in the Seventh and Eighth Grades

(1) *Too little adaptation of the work to the needs of individual pupils.* This topic will be discussed at greater length in another connection. Suffice it here to point out that rarely (and until very recently, indeed, only in the larger and most progressive systems) has any distinct provision been made, in these grades, for individuals of differing capacities, tastes, interests, and purposes. Precisely the same subjects were pursued by all, with precisely the same methods of teaching, and with precisely the same standards of promotion. The pupil whose racial inheritance of culture was slight received the same treatment as did the one whose racial inheritance of culture was great; the "practical-minded" or "motor-minded" individual was taken through the same course of training as was the one for whom more formal studies had an interest; the boy or girl with an alert intellect was held to the same course and to the same rate of progress as was the boy or girl of slow comprehension and slow mental processes.

(2) *Too little correlation of school work with out-of-school interests and experiences.* This is an indictment that can

still be made against the teaching in all types of schools. If its effects are worse upon the pupils of the seventh and eighth grades than upon those in other divisions, this is due, doubtless, to the peculiar susceptibility of the pupils of those grades to the deadening effects of the formal and bookish type of teaching. Such methods are peculiarly reprehensible when employed with adolescent boys and girls.

That the work of the seventh and eighth grades has in the past been largely of the formal type is evident when the subjects and the manner in which they were formerly taught are considered :

(a) Reading — with stress on pronunciation, enunciation, and bodily posture.

(b) Literature — limited to the study of a few books and these, for the most part, selected by scholarly adults because of their literary merit rather than because of their power to interest pupils and to help them to acquire a love of reading.

(c) Grammar — consisting primarily of the memorizing of technical rules and the unmotivated application of these to isolated sentences and paragraphs.

(d) Expression — chiefly written, and concerned with topics remote from the immediate experiences of the pupils.

(e) Penmanship — not for the sake of conveying ideas, but to imitate a set model.

(f) Spelling — not infrequently dealing with words rarely used in the everyday activities of the pupils.

(g) Arithmetic — consisting of formal processes carried out in problems that are seldom found in social relationships.

(h) History — confined to a consideration of events connected with our own land, and these largely of a political and governmental character.

(i) Geography — an account of political divisions, with little attention to the physical, economic, and social elements related thereto.

(j) Physiology — consisting of a study of the parts of the body, with slight attention to functions.

(k) Science — conspicuous by its entire absence.

(l) Practical Arts — if present at all, taught as exercises

and with little relation to the practical experiences to which they relate.

(m) Drawing — as a formal exercise.

(n) Music — only rarely seeking to give pupils a real appreciation of musical forms and musical works.

(o) Physical training — unmotivated exercises of gymnastic types.

(p) Assembly exercises — listless reading and tedious talk.

Is it any wonder that large numbers of pupils withdraw from school? Under the old régime, hungry souls were often starved, and unawakened souls remained asleep because the quickening forces were too feeble to arouse them.

(3) *Too little recognition of pupils' sense of personality.* It is sufficient here to note the failure of many school authorities to provide a school discipline for the seventh and eighth grades that differs at all from that employed for children of the lower grades; to provide adequate opportunities for social development among the pupils; or to give any recognition to their instinctive desire to initiate new undertakings and to participate in coöperative works.

The above mentioned causes are not the only ones operating to bring about withdrawals in the grades mentioned, but they are notable ones.

(B) Causes of Eliminations in the Ninth and Tenth Grades

(1) *Too abrupt a change in school work and in the demands made upon pupils.* The location of the school building often encourages elimination. The transfer to a high school building located, it may be, one, two, or three miles from home affords an argument to an indifferent or lazy pupil for not attending school beyond the eighth grade.

The change in subjects of study bewilders some children. In the elementary school, a pupil pursues a daily program that includes a dozen or more classified subjects of study.

In the high school, he is expected to pursue subjects which are, for the most part, wholly strange to him. Unless the new subjects are presented in a very interesting and sympathetic manner, pupils are apt to become discouraged and to leave school altogether.

Methods of recitation in the high school are new to the pupil. In the typical elementary school, recitation periods extend from ten to thirty minutes; in the high school they are generally from forty to sixty minutes in length. In the elementary school, a knowledge of isolated facts and forms often suffices; in the high school, stress is laid on relationships. In the elementary school, the question and answer method dominates; in the high school, the topical recitation is the ideal.

Modes of study likewise differ. In the elementary school, short lesson assignments prevail; study is carried on within the school building, often under the direct supervision of the teacher; and little supplementary reading is exacted. In the high school, assignments are longer; little opportunity for study under supervision is provided; considerable collateral work is prescribed; and preparation of a portion of the tasks outside the school building is required.

The discipline of the high school is a test in which many children fail. In the elementary school, pupils are largely governed by fixed rules. In the high school, a large degree of personal freedom and responsibility is granted.

(2) *Unsuitability of the typical ninth-grade course for many types of pupils.* Notable changes have been made in the ninth-grade offerings in many schools during the last few years. Nevertheless, in most of the small schools, and in altogether too many of the larger ones, the curricular offerings are limited, and little personal choice of subjects is permitted to the pupil. No manual or household arts, no agriculture, no commercial work, no design, no physical training

is to be found in the ninth grade in hundreds of schools. Moreover, the organization and administration of the work that is offered are remote in their appeals, formal in their methods, and ineffective in their results. Pupils finding little material that relates to the concrete experiences of their lives and seeing little practical value in the courses offered, often become discouraged, then indifferent, and finally withdraw altogether.

FOURTH AIM: TO FURTHER THE CAUSE OF DEMOCRACY
IN EDUCATION

Professor C. H. Judd states the case thus: "The Junior High School has grown up in democratic America as the last chapter in the history of the struggle against the mediæval system."¹ What this mediæval system was may best be understood by recalling the ideas which dominated a large part of European thought and practice previous to the World War. Mediæval society held to the belief in the divine ordination of certain individuals to be privileged characters in the world of affairs, and the condemnation of other individuals to positions of subjection. As a corollary of this belief, the claim was advanced that only the one class was entitled to a liberalizing education or could profit therefrom. The other class was supposed to be happier and more serviceable to the world when kept in nearly total ignorance.

This belief began to give way under the influence of the Protestant Reformation. Straightway the privileged classes formed a new line of defense by inaugurating a system of education that made provision for two types of schools — the one to furnish an elementary education for the masses; the other to furnish secondary and higher education for the

¹ *A Democratic School System*, page 78.

classes. The one aimed to develop implicit faith in the established order of things, to inculcate respect for authority, to secure loyalty and obedience to the State and the Church, and to give training in menial occupations. The other aimed to give a liberal culture, a sense of personal superiority, and a training for the higher offices of State, Church, and the larger affairs of the world. The one was designed for the children of the common people, — i.e., the artisans, the peasants, the poor, and the socially submerged; the other was designed for the children of the aristocratic governing classes. This mediæval system of schools, somewhat disguised, has existed in one form or another from the Middle Ages down to the present time. But gradually, the forces of privilege have given way, and the principles of democracy, involving as they do the idea of equal opportunities for all persons, without respect to conditions of birth, have taken precedence. The junior high school marks, as Professor Judd has stated, “the last chapter in the history of the struggle.”

CHAPTER FIVE

WHY THE SIX-THREE-THREE PLAN IS RECOMMENDED

IN the previous chapters, some of the principles underlying the demand for reform in the elementary and secondary schools of America have been presented, and certain tentative and more or less general conclusions have been drawn. In the present chapter some of the specific arguments that favor the establishment of the junior high school are set forth.

OBJECTIONS TO THE EIGHT-FOUR PLAN

Obviously, whether or not eight years are longer than necessary for the work of the elementary school depends upon the nature and extent of the task which that school is expected to accomplish. No adequate formulation of the aims of elementary education has ever been made. In general, the idea seems to prevail that the purpose of the elementary school is not so much inculcation of knowledge as the establishment of attitudes and processes of learning. As Dewey states it:

The aim of the elementary school . . . should not be knowledge, but to organize the instincts and impulses of children into working interests and tools. The stress should be on methods, not results. Not that we do not want results, but that we get better results when we transfer the emphasis of attention to the problem of mental attitude and operation. We need to develop a certain active interest in truth and its allies, a certain disposition of inquiry, together with the command of the tools that make it effective, and to organize certain modes of activity in observation, construction, expression, and reflection. Six years ought to be enough to accomplish this task.¹

¹ *School Review*, Vol. I, page 18, 1903.

For Hanus, the elementary school, besides guarding and promoting a child's normal physical health, should aim :

. . . to nourish the mind of the child through the course of study, which should comprise an orderly presentation of the whole field of knowledge in its elements, and to provide an opportunity for the exercise of all his powers — mental, moral, æsthetic, manual or constructive — through good instruction and wise discipline.¹

Formerly, when the school year consisted of three, four, or five months in the winter season, when attendance during that short period was irregular, when teachers were inadequately prepared, textbooks scarce and ill-adapted to pupils' needs, supervision almost wholly wanting, and agencies for fortuitous education limited and weak, eight or more years devoted to the acquisition of even the rudiments of an education were none too long and the attainments none too gratifying.

Under conditions existing in most sections of the United States, with the school year extending over eight, nine, or ten months, with compulsory attendance laws in effect in every state, with improved texts, improved equipment, improved methods of teaching and of supervision, and with libraries, newspapers, magazines, lectures, motion pictures, and opportunities for social intercourse afforded in scores of ways unknown to earlier generations, there would seem to be little justification for devoting so many as eight years to elementary education. Mr. O. C. Schwiering is authority for the following significant statement :

Application of the standard tests, such as Courtis's Arithmetic, Kelley's Silent Reading, and Gray's Oral Reading tests, goes to show that little progress is made in the mechanical mastery of the common branches in the last two grades (of the eight-year elementary school).²

¹ *Educational Aims and Educational Values*, page 17.

² *Wyoming School Journal*, page 222, 1919.

Mr. Schwiering then asks the pertinent question :

If proficiency is attainable at the end of the sixth year in these common branches, why should we continue to emphasize them as the main studies in the last two years? Why should we not strive for this proficiency at the end of the sixth grade and add prevocational and secondary subjects to the curriculum of these two years?

The investigations of other educators bear out Mr. Schwiering's assertions and lend added weight to his queries.

The elementary school is America's *common* school — the school in which common facts, common ideas, common processes are presented in a common manner to all pupils. The expected outcome is a common body of ideals, common interests, common attitudes, common habits, common likes and dislikes, among all youthful citizens. The aim here is primarily to build on common foundations and to integrate individuality into a common national type of citizen. If the task can be adequately performed in six years, it is folly to consume more time and to encroach upon the rights of individualism as sought in a differentiated type of training.

A mass of evidence goes to prove that an elementary course of six years is adequate. If a period longer than six years is being employed by school administrators, one of three conclusions must follow: (1) the elementary school is being made to bear burdens and undertake forms of instruction that rightfully do not belong to it; or, (2) the organization and administration of the work provided are imperfect, if not wholly out of harmony with twentieth century educational principles; or, (3) the standards of attainment are too high for practical realization.

Whether or not four years are sufficient in which to give an adequate secondary school training depends on the aims and standards established. Secondary schools with two-year courses are not unknown, while, on the other hand, nine years have for generations been the recognized length

of the course of study pertaining to certain types of secondary schools in European countries. Formerly, the American secondary school, even the public secondary school, was essentially a select school, serving primarily members of the privileged classes in society and being directed, if not dominated, by college and university ideals and interests. That condition no longer prevails.

Under the older régime, when a fixed and narrow aim was established for the secondary schools, when the teaching material was limited in quantity, and when results were measured in formal terms, four years served fairly well to accomplish the task imposed on the secondary schools. In the present era, with teaching material multiplied many fold, with specific objectives increased from one or two to a half dozen or more, with the avowed purpose of the school changing from the task of developing revealed talents to that of promoting the "discovery" as well as the "development" of each pupil's "dominant interests and powers," with a refinement of ideals and an elevation of standards, four years are proving an inadequate period in which to perform the task laid upon the high schools. Either the demands on the secondary schools must be reduced or the time allotted to them for carrying on their work must be increased. As the first of these plans is not feasible, the conclusion follows that the period of time must be increased.

The democratic principle of equality of opportunity for all is largely responsible for the movement to establish a six-year period of secondary education. But the ideal of equality of opportunity in education is rapidly coming to mean not a *like* training for all, but a training appropriate to each pupil's interests, needs, and capacities. Today, the ideal high school is a school of liberal culture, where the task is first to discover in pupils their real interests and powers; second, to nourish their spiritual life by guiding them into

an elementary knowledge of the facts, truths, and laws of relation in a wide range of subjects; and third, to train them to interpret facts, to apply truths, and to perceive the laws of relation in a manner that will enable them to solve the problems of life.

REVISED THEORY OF MENTAL DISCIPLINE

The belief that exercising the mind produces increased mental power has long been held by philosophers and educators. That the process whereby this increased mentality is secured is a simple and determinative one is not so convincingly established. It is unnecessary here to enter into an account of the controversy respecting the dogma of formal discipline or to enumerate the arguments. The main tenets of the older and the newer schools of thought may, however, be briefly indicated.

(1) *The older conception*

(a) The chief value in education consists not in the acquisition of knowledge but in the process of acquiring it.

(b) A few studies are as valuable as many in furnishing an education.

(c) Formal studies, lending themselves to more compact forms of organization and lacking the weaknesses connected with masses of concrete and distracting details, constitute more desirable material for education than content studies.

(d) Training is general, and intellectual power acquired in connection with one set of material is transferable with little loss and is usable in connection with entirely new and unrelated sets of material.

(2) *The new conception*

(a) Knowledge and intellectual power are inseparable, the former being an essential medium by means of which the latter develops and expresses itself.

(b) Mental discipline is essentially specific in character and hence assumes many forms.

(c) Many and varied studies furnish more usable data for the mind than can a few formal ones.

(d) Transfer of power is secured only under ascertainable limitations, depending upon the likeness of elements and processes involved.

(e) It is uneconomical to seek first to fashion the mind and then later to furnish it, since, by a judicious selection of subject matter and of methods, useful knowledge and functioning powers may be secured simultaneously.

Thus it appears that the dogma of formal discipline is neither wholly proved nor disproved. It is, however, now less generally accepted as a guide for school administration than formerly. Out of the discussions regarding it has come, as Briggs says :

. . . a general disbelief in the old faith that power developed in one field automatically and inevitably is exercised in all other fields. . . . The faith that "discipline" of the mind or spirit is secured by work that is distasteful also finds few defenders today.¹

Necessarily, therefore, a rejection, even in part, of the doctrine of formal training carries with it a demand for a reorganization of the subject matter and methods of school work, and particularly for less attention to merely formal studies.

CHANGED CONCEPTION OF CULTURE

The culture of the mind and of the personality has for ages past been the declared purpose of collegiate education and of the upper stages of secondary and elementary school training.

Three views of culture can be outlined.

(1) *The original idea.* This view implied a knowledge and a training that enabled a person to comprehend the interests, activities, and possibilities of the society of his own time and to participate effectively in the undertakings of his col-

¹ Briggs, T. H., *The Junior High School*, page 10.

leagues. The process whereby this culture was attained consisted chiefly of a linguistic, literary, and historical study of the ancient peoples whose lives and achievements were regarded as having approached nearest the ideals of perfection. Having drunk from the very sources of idealism and having become intoxicated with the spirit of progress and altruism, each new disciple tried to employ his learning and skill in reshaping the ideas, ideals, and practices of his own time and community. The good citizen was one who, a scholar himself, participated in an active and scholarly way in the public activities of his generation.

(2) *Decadence.* In decadence, the means of culture became the ends themselves. The ideal became not knowledge and power acquired for the sake of aiding in the improvement of society, but a critical knowledge of ancient language and literature without reference to their bearings on contemporary problems and institutions. The good citizen thus was one who stood aloof from the active affairs of common men and prided himself on a culture that others did not possess.

(3) *The contemporaneous idea.* In our own day, the original idea of culture has been restored and elaborated. To be liberally educated is to be at once possessed of a certain knowledge, to have a certain amount of training, and to possess a desire to interest oneself in all worthy undertakings that relate to the time and community in which one lives and to participate effectively in the solution of the problems incident to them. To this end, no contributing source of knowledge or power is left unexplored or unemployed as a means of equipping the individual for his tasks.

Perhaps the famous characterization of a liberal education given by Huxley approaches nearest to the modern conception of what is meant by culture in its contemporaneous sense :

That man, I think, has had a liberal education who has been so trained in youth that his body is the ready servant of his will, and does with ease and pleasure all the work that, as a mechanism, it is capable of; whose intellect is a clear, cold, logic engine, with all its parts of equal strength and in smooth working order, ready, like a steam engine, to be turned to any kind of work, and spin the gossamers as well as forge the anchors of the mind; whose mind is stored with a knowledge of the great and fundamental truths of nature, and of the laws of her operations; one who, no stunted ascetic, is full of life and fire, but whose passions are trained to come to heel by a vigorous will, the servant of a tender conscience; who has learned to love all beauty, whether of nature or art, to hate all vileness, and to respect others as himself. Such an one, and no other, I conceive has had a liberal education, for he is, as completely as man can be, in harmony with nature.¹

More recently Frederick M. Davenport has expressed the present idea, in relation to the work of the upper grades of the elementary school and of the junior high school:

How to make the first six years of elementary education more effective in time and knowledge and inspiration; how to hold the boys and girls of fourteen in school a little longer until they learn what it is to be Americans and what working niche in the world they are best fitted to fill — that is the problem. Reading, writing, figuring, and spelling, of course, in a more effective practical way; and physical training beyond the dream of Athens. But something also about the stars, and birds, and trees, and real things of many sorts in science and literature and language and art and music; and the history of institutions and the economic and social happenings of common men. But, of the old discipline, only that is to be retained which will freely and fully energize the mind for service in the present age and give it practical vision and enthusiasm and power.²

PRACTICES IN FOREIGN COUNTRIES

The form of school organization in other lands is decidedly different from that in America. The United States is the

¹ Huxley, T., "A Liberal Education," in *Lay Sermons and Addresses*, pages 34, 35.

² Davenport, F. M., "Revolutionary Tendencies in the School Systems of the United States," in *The Outlook*, pages 59 *et seq.*, 1917.

only country in the world that has the eight-four organization. Still, as Briggs says: "It does not follow, however, that it is bad for our Republic with its peculiar democratic ideals and economic conditions." ¹

A detailed account of the school systems of foreign countries would be inappropriate here. Nevertheless, a consideration of the recent efforts of certain foreign school administrators to render more effective the training of boys and girls from twelve to fifteen years of age is very instructive. These efforts have, for the most part, taken place within the last two decades.

The political and educational philosophy which dominates life in Europe and Asia differs from that which prevails in America. Social arrangements are more definite and fixed than with us. Not only is society stratified, but every instrument of government has, with rare exceptions, operated to perpetuate class distinctions, rather than to obliterate them. The result is that two — sometimes three — distinct kinds of schools exist in many foreign states: (1) the common elementary school for the children of the masses whose destiny in life is to occupy positions more or less servile; (2) secondary schools open only to children of the superior social and official classes, and administered in such a manner as to exclude individuals who do not belong to those classes; and (3) a hybrid type of school designed for the children of the so-called middle classes. Thus, under the European school system, there is, with rare exceptions, no common school for *all* individuals to attend from early childhood to the age of sixteen or eighteen. Instead of America's single-trunk system, foreign countries employ a system which differentiates instruction within separate schools; not, as with us, by means of distinct curricula and courses, within a common school.

Nevertheless, since the World War the educational trend

¹ *The Junior High School*, page 5.

in Western Europe has been toward a more democratic conception of social life, and hence educational leaders have sought in various ways to embody this idea in their school systems. As yet, these efforts can scarcely be regarded as having attained permanent results; but they give promise of many notable changes. The foreign school situation may be set forth briefly.

(A) *England*

- (1) A common elementary school of seven (or eight) standards or years.
- (2) Intermediate schools of two main types, namely:
 - (a) Higher elementary schools of three years.
 - (b) Central schools of three years.
- (3) Secondary schools of many types and varied duration.
- (4) Technical schools.
- (5) Universities.

The following sentences taken from Sandiford's *Comparative Education* give a suggestion of the aims and work of the intermediate schools:

The Higher Elementary Schools in England are designed for those pupils who can continue their education beyond the minimum provided in the elementary schools but who have no desire to enter the university preparatory secondary schools. These schools seek to give a higher elementary education to pupils from twelve to fifteen years of age — the age of the junior high school pupils in America. The curriculum consists of modern foreign language, science, elementary mathematics, English language and literature, history and geography, and "special instruction bearing on the future occupations of the scholars, whether boys or girls."¹

The Central Schools likewise take pupils of the ages twelve to fifteen and seek to offer them a more elastic curriculum adapted to local industrial needs. To quote Sandiford once more:

¹ Sandiford, P., *Comparative Education*, pages 220-221.

The curricula of the Central Schools have a commercial or industrial bias, or both. . . . In the commercial course, the branches studied include a foreign language, . . . science, including laboratory work, drawing, handicraft for boys, housecraft for girls, shorthand, bookkeeping, typewriting, English, history, geography, mathematics, singing, and physical exercises. In general, the pupils are not specifically trained to be clerks or stenographers . . . but underlying principles are taught which have wide application in commerce and transportation. The content of the subjects is modified to suit the probable vocations of the pupils, and the practical side of the studies, especially in mathematics, drawing, and the foreign language, is emphasized.

The industrial course is less well defined and much experimenting is taking place. . . . Vocational skill is not aimed at, but the development of industrial intelligence is kept to the fore. The curricula vary. In general, it may be said that practical work in science, drawing, clay-modelling, woodwork, and metal work forms the basis for boys, and in science, domestic economy, drawing, and needlework for girls. The modern language usually finds no place. History, geography, and other general subjects are the same as in the commercial courses, but are usually approached from a different angle. The history and organization of industries and the influence of inventions, for example, invariably form part of the history course.¹

Speaking of the Fisher Act of 1918, Dr. James F. Hosis writes as follows :

The effect of the bill is clearly to develop a new sense of the importance of a national system of education which shall equalize the opportunities for all children by providing first-rate facilities everywhere, with differentiation of courses as the period of actual employment approaches. England is at last providing the single, unified school organization which the ideals of the Protestant Revolt and democratic movement of the Renaissance called for. In the provision for day continuation schools with compulsory attendance to sixteen and the supervision and inspection of all schools, private and parochial, as well as public or "board" schools, she is in advance of America.²

¹ Sandiford, P., *Comparative Education*, pages 220-221.

² "The Educational Trend in Europe," in *The Journal of the National Education Association*, page 19, February, 1921.

(B) France

- (1) Primary school, six years in length.
- (2) Higher primary school, one, two, or three years in length.
- (3) Secondary schools :
 - (a) For boys, with school course of seven years.
 - (b) For girls, with school course of five years.
- (4) Technical schools :
 - (a) Primary technical schools, articulating with the common primary school.
 - (b) Middle technical schools, open to boys between the ages of fifteen and seventeen.
 - (c) High technical schools, affording instruction of a collegiate grade.
- (5) Universities.

Of the types of schools mentioned, four concern themselves with pupils of the ages twelve to fifteen, and hence these schools have particular interest for the junior high school administrator in America. These four schools are: the higher primary, the secondary for boys, the secondary for girls, and the primary technical.

The higher primary school is designed so that

. . . children who are not required immediately to earn money may carry further their general education and a certain amount of hand and eye training. . . . The first year's course is the same for all pupils. With the second year, specialization begins, and there are four courses to choose from: general (i.e., literary, the course taken by candidates for the teaching profession); commercial; industrial; and agricultural. . . . To all schools certain subjects are common, such as morals, handwriting, history, civics, physics and chemistry, gymnastics, and singing. In the girls' school, there are fewer hours given to mathematics, the theoretical work in agriculture is omitted, manual training is replaced by sewing, dress-making, and domestic economy, while hygiene, common law, and political economy are treated from a woman's standpoint.¹

¹ Sandiford, *op. cit.*, pages 324-325.

Admission to the French secondary schools usually occurs at the age of ten. The boys' school is seven years in length; the girls' five. In the boys' schools, the program of studies includes: Greek, Latin, modern foreign language, mathematics, history and geography, science, ethics, civil government and law, drawing, writing, and philosophy. In the girls' schools, the program is entirely modern, no Latin or Greek being offered. One modern foreign language is, however, prescribed for all, and a second modern language is optional during the last four years. Except for specialists, mathematics is limited to arithmetic and plane geometry.

In the primary technical schools, the aim is to prepare pupils directly for vocations while at the same time giving a limited general education as a basis for citizenship and for understanding the problems of the trade. Training is adapted to local needs, the girls being educated primarily for the home or for flower making or dressmaking.

But France, too, is contemplating a greater democratization of her schools. Speaking of the movement, Dr. Hosic says:

Most ambitious is the program of Les Compagnons. This society, founded during the war by university men on leave from the trenches, is carrying on an active campaign for the complete reorganization of the French *Université*. First of all they wish to make it possible for all the children of all the people to pass on to the higher schools, no matter what school they have attended up to the age of twelve. This means the practical unification of the system. The distinction between primary and secondary education as the French use the term would disappear. In the second place, the society would decentralize and insure to each school unit and region more freedom to adapt instruction to the needs of the students and particularly to the facilities which a given region affords, as agriculture, mining, and manufacturing. In general, education would become less formal, bookish, and abstract, and more practical and vital.¹

¹ *Op. cit.*, page 20.

(C) Germany

- (1) Folk or elementary school of eight years, designed for children of the laboring classes.
- (2) Intermediate school of nine years, designed for children of the intermediate classes.
- (3) Secondary school of six or nine years, designed for children of the superior social classes :
 - (a) For boys.
 - (b) For girls.
- (4) Vocation schools.
- (5) Universities.¹

Here the types of schools that afford most suggestions for junior high school enthusiasts are the intermediate schools (*Mittelschulen*) and the secondary schools, particularly in the work of the first three, four, or five years. As in other parts of Europe, the three common types of schools — elementary, intermediate, and secondary — run parallel to each other. A pupil rarely attends more than one type of school after he has reached the age of nine, the choice of types to be determined early in his childhood.

The intermediate school in Germany corresponds to the higher primary school of France and England. It seeks to furnish a more intensive study than that afforded by the elementary schools, particularly in respect to foreign language, history, and science, and aims to prepare boys and girls for the new demands of industry and commerce. The program of studies includes German, religion, history and geography, arithmetic and bookkeeping, nature study, writing, drawing, singing, physical training, and one foreign language.

Secondary education is entered upon in Germany when the pupil is about nine years of age. Religion, ancient and modern language, history and geography, mathematics,

¹ This outline considers Germany as it was before the World War.

science, writing, drawing, singing, and gymnastics constitute the curriculum for all. Few classes meet daily, though some meet more than five times per week.

For the girls, the Prussian secondary school, newly organized in 1908, provides a ten-year course beginning at the age of six. Up to thirteen years of age, the course is uniform for all, but is designed to be "ethical and æsthetic rather than intellectual." Modern foreign language, but not ancient language, is, however, included in the course from the beginning of the fourth year, when girls are about the age of nine.¹

Speaking of the present trend in German education, the editor of *School Life* writes as follows:

The national constitution of the 11th of August, 1919, contains under the fourth section, "Education and the School," not less than nine comprehensive paragraphs in which appears the establishment of a definite forward movement as compared to the conditions of 1914, since they remove all domination, including the despotism of the *Standesschule* (the denominational school), and the *Lernschule* (the bookish school of the traditional type). The unconditioned establishment of the *Einheitsschule* (the unity school), the *Weltlichen Schule* (the secular-instruction school), and the *Arbeitsschule* (the motivated or creative school) does not necessarily follow, to be sure. In the main, the constitution makes promises only; but one can not easily disturb this foundation, even if the structure, proud and beautiful, does not arise immediately.²

¹ The ordinary elementary school (*Volksschule*) of eight years likewise includes the period of our seventh and eighth grades. As such, it offers no particular suggestions for our junior high school. Supplementing the work of the elementary school, however, stands the continuation school (*Fortbildungsschule*), a part-time school, covering a period of two, three, or four years. The first year of this school would normally coincide with one of the years of our junior high school period. In so far as the junior high school has for its objectives trade education for youths approximately fifteen years of age, the German continuation school offers some help. Otherwise it contributes little to the problems of this school.

² *Op. cit.*, page 1, September, 1922.

(D) The Scandinavian Countries

- (1) A common elementary school of five or six years.
- (2) A group of intermediate schools consisting of :
 - (a) A higher primary school of two or three years, designed for pupils not expecting to continue their education further.
 - (b) A middle school of three or four years, designed for those pupils who expect to enter the secondary school.
- (3) Secondary schools of one or more types, as :
 - (a) *Real* school, or modern secondary school, of one or more years, designed to fit pupils directly for life activities.
 - (b) Gymnasium, of three or more years, leading to the university.
- (4) Vocational schools.
- (5) University.

While conspicuous differences exist in the organization of the schools in Norway, Sweden, and Denmark, the points of likeness are sufficiently prominent to warrant grouping these countries together.

Within the elementary, higher elementary, and *real* schools of the Scandinavian countries are found the usual formal branches of study, together with some or all of the following : religion ; geometry ; practical mathematics, including everyday arithmetic, applied geometry, and bookkeeping ; science, including biology, physiology, physics, and chemistry ; two foreign languages (English and German) ; nature study ; hygiene and sanitation ; history of modern times, particularly of the Scandinavian countries and their governments ; geography, especially of the home country and including the topography, soil, climate, resources, and industries ; writing, directed toward practical forms ; drawing, directed toward practical ends ; sloyd and manual training ; swimming ;

gardening; singing; gymnastics; domestic economy; and vernacular language and literature.

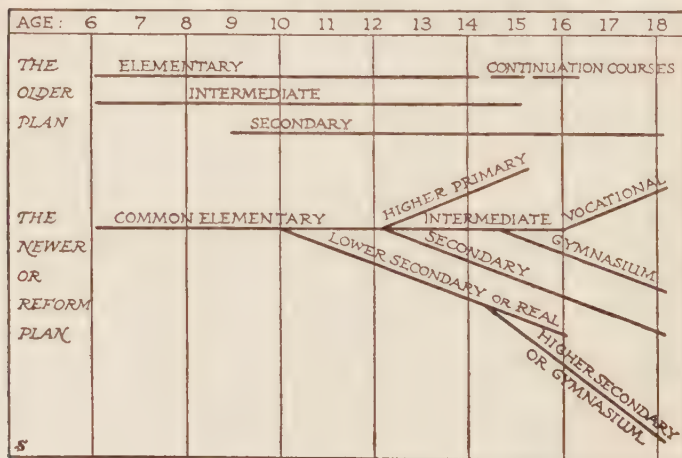
(E) *Japan*

- (1) Elementary school, six years, common to all.
- (2) Higher primary school, three years, for those not going further.
- (3) Middle school, five years, for those expecting to continue their education further.
- (4) Higher middle school, two and one half years, distinctly university preparatory.
- (5) Technical schools.
- (6) University.

Within the middle schools of Japan are to be found the following offerings: morals, Japanese language, Chinese literature, a European language (English, French, or German), history, geography, mathematics, natural sciences, physics, chemistry, law, economics, drawing, singing, and gymnastics.

(F) *Analysis of Composite Foreign Systems*

The following chart gives a composite sketch of the school systems of foreign lands:



A careful analysis of the various foreign school systems mentioned reveals the following significant practices or tendencies, namely :

- (1) To terminate the common school at the end of six years.
- (2) To provide some kind of transitional school for the three years, twelve to fifteen.
- (3) To make the work of the transitional school realistic and vital to the pupils pursuing it.
- (4) To have for the transitional school several coördinate aims, namely :
 - (a) To give to pupils opportunity to test their aptitudes and make self-discoveries.
 - (b) To give to pupils overviews in many fields of knowledge.
 - (c) To provide a practical moral and civic training for all pupils.
 - (d) To lay prevocational foundations for those who expect to enter industry and trade, and to furnish them with a modicum of vocational training.
 - (e) To make an easier transition for pupils going into university preparatory schools.
 - (f) To provide a more appropriate education for girls.
- (5) To use a variety of names to designate the various types of transitional schools ; namely, Higher Primary School, Lower Secondary School, Introductory Secondary School, Intermediate School, Middle School, Lower Middle School, Modern School, *Real* School.
- (6) To provide much flexibility in the administration of schools throughout the entire system.
- (7) To provide for pupils to begin secondary school subjects as early as eight, nine, or ten years of age.
- (8) To provide special types of work for retarded pupils and those with short school careers before them.
- (9) To provide for transferring pupils to advanced secondary schools at the age of fifteen or sixteen.

- (10) To provide for pupils between the ages of ten and fifteen a program of studies that extends, but at the same time decidedly enriches, the curriculum of the elementary school, and includes such subjects as :
- (a) Morals and ethics.
 - (b) Religion.
 - (c) Vernacular language and literature.
 - (d) Ancient and modern foreign languages.
 - (e) Contemporary history and current events.
 - (f) Practical knowledge of social relationships, such as courses in economics, sociology, legal ideas, and civics.
 - (g) Arithmetic and the elements of algebra, geometry, bookkeeping, and accounting.
 - (h) Nature study and natural history.
 - (i) Introductory science with laboratory work, and courses in biology, physiology, physics, and chemistry.
 - (j) Geography, as it relates to the topography, soil, climate, resources, industries, and trade of people, particularly in the home land.
 - (k) Writing, directed to practical ends.
 - (l) Drawing, related to practical forms.
 - (m) Singing, centering about folk-songs and national anthems and designed to give a usable appreciation of music.
 - (n) Personal and public hygiene and sanitation.
 - (o) Gymnastics, related to practical ends and physical enjoyment.
 - (p) Practical arts appropriate to the locality and to the pupils undertaking them.
 - (q) Vocational arts suited to the needs of the time, the place, and the pupils.
- (11) To organize the program of studies into a few curricula, usually Literary, Commercial, Industrial, and Agricultural.
- (12) To segregate pupils on a basis of sex.
- (13) To require from twenty-eight to thirty-two class periods per pupil per week.
- (14) To ignore the uniform five-period schedule of classes per week.

- (15) To provide a sixty-minute class period, with much class study and little home study.
- (16) To provide a longer school day and school year than is customary in America.
- (17) To provide more men teachers for pupils of all stages of development than is generally the case in America.
- (18) To seek to give a rounded education to each pupil in whatever type or grade of school he may be found.

In short, foreign countries proceed on the principle of having distinct types of schools for distinct types of pupils of the adolescent age. America has so far proceeded on the theory that it is wiser and more democratic to provide flexibility of administration within common types of schools than to risk the danger of fostering class distinctions by providing separate schools for separate classes.

ADMINISTRATIVE CONSIDERATIONS

Certain practical considerations lend their support to the reformed program, and likewise enter into the question of the reform of the schools on the six-three-three basis. Among the more common administrative considerations that give support to the junior high school plan of organization four may be stated.

(1) *Centralization and grouping of grades.* The grouping of the seventh, eighth, and ninth grades of a school system, or of a large geographical division of a school system, enables administrators to make use of certain desirable practices. In the separate ward or grammar schools, the pupil enrollment is not always sufficiently large to justify the employment of departmental organization; promotion by subject; an enriched program of studies; shop, laboratory, and recreational activities; election of subjects; and supervised study. The junior high school provides for this particular contingency. Even in small systems, where the enrollment is light, the grouping of the three grades—seventh,

eighth, and ninth — is likely to result in a school sufficiently large to justify the practices mentioned.

(2) *Full-time teachers of special subjects.* Instead of having a teacher of manual arts, domestic arts, music, fine arts, or other subjects traveling from school to school and spending but a part of a day in each, the junior high school plan places all of a teacher's work in one building. This concentration renders it unnecessary for teachers to make trips from one center to another during the hours of the regular school day.

(3) *The employment of common shops, laboratories, gymnasiums, and playgrounds by both senior and junior high schools.* In small towns, building the junior high school in close proximity to the senior high school permits placing the shops, laboratories, gymnasium, swimming pool, auditorium, school gardens, museums, conservatories, and other rooms and materials of special kinds between the two buildings and thus makes them easily accessible to the pupils of both the junior and the senior high schools. Thus each group of students may have facilities and equipment which might easily be too expensive for either school to purchase at its own expense. Obviously, however, considerations of the above kind should govern only where the combined groups are relatively small. To attempt a scheme of this sort in larger cities and towns would defeat the very ends for which the segregated junior and senior high schools are maintained.

(4) *Relief from overcrowding.* A junior high school, by taking the pupils of the ninth grade out of the senior school, often relieves congestion and obviates the building of a new and expensive four-year high school building. When this saving of expense can be effected without prejudice to the work of the school, it is certainly to be recommended. The junior high school being simpler in all its ways than the

senior high school, the expense for the building and equipment is usually less than the amount required for the great senior high schools of the present day. On the other hand, the right kind of junior high school building will cost more than a typical ward school. Neither is it good pedagogy to give to boys and girls, at a time when they are very sensitive to environment, buildings that are no longer serviceable for other groups of pupils. It will be true economy in the long run to abandon buildings that do not conform to sanitary, æsthetic, and economic standards rather than to patch, make over, or add to outgrown structures.

CHAPTER SIX

WHAT THE NEW SCHOOL SHOULD ACCOMPLISH

SCHOOL organization and administration are but means to ends, never ends in themselves. Unless a reorganization of the school system on the basis of the six-three-three plan can produce results superior to those of the traditional school, there is no excuse or justification for urging a reform. It is therefore pertinent to ask: What does the junior high school seek to accomplish and what are its chances of success?

What any school should accomplish will depend, of course, upon the philosophy of life held by the controllers of the system and the end they have in view. Now, life objectives or philosophies consist of ideals which have their origin in the concrete experiences of men and which are elaborated by the aspirations and the workings of the human spirit. The forms in which these ideals shape themselves are those copied from known patterns, modified by the operations of the constructive imagination. The kinds and influences of these life ideals have, doubtless, been almost infinite in number, but a certain few have stamped themselves on the records of history in conspicuous ways. Among the more notable are these:

(1) *Happiness*. Personal satisfaction secured through rational action. The Aristotelian doctrine of the "golden mean" best expresses it.

(2) *Pleasure*. This is the ideal of personal gratification at all costs. Its modern motto might be, "Each for himself and the devil take the hindmost."

(3) *Duty*. This ideal has found followers in all ages. The Stoics pursued it to the point of death and pain. Their motto might be paraphrased, "Act justly, though the heavens fall," or, "Be guided by principle in all matters."

(4) *Discipline*. This ideal is akin to that of the Stoics, but, to a greater degree than with the Stoics, its advocates justified their beliefs by the authority of divine law as interpreted by religion.

(5) *Culture*. The philosophy which conceives culture to be the end and aim of life interprets it to mean the acquisition of a literary knowledge of a conventionalized type; the development of linguistic power; and a refinement of manner that conduces to gentleness, tolerance, and courtesy.

(6) *Self-realization*. This expression is generally used to signify the development of individuality through the stimulation of inherited instincts and impulses, that is, freedom to live one's life unhampered by laws and social limitations.

(7) *Social welfare*. In its extreme form, this idea regards the State as completely dominant over individuals. In the more commonly accepted form, however, the nation conceives the purpose of human existence to be human development and racial betterment, and holds that this end is best accomplished when each individual is developed in accordance with the potentialities of his own nature — provided only that these potentialities be not malignant and destructive of the fundamental principles of morality.

Clearly, no single one of these life ideals can be regarded as the one accepted for the guidance of life in America today. The dominant philosophical ideal in America is probably a composite ideal made up of various factors. *Democracy* is the word that best sums up this ideal, and therefore democracy may be regarded as the goal of our civilization. Democracy implies a willing association of individuals in a social whole, and therefore holds both the ideal of self-realization and the ideal of social welfare.

With this in mind, the Committee on the Reorganization

of Secondary Education, in its formulation of the cardinal principles proposed for guidance in refashioning the schools, declares :

Education in the United States should be guided by a clear conception of the meaning of democracy. It is the ideal of democracy that the individual and society may find fulfillment, each in the other. Democracy sanctions neither the exploitation of the individual by society, nor the disregard of the interests of society by the individual. More explicitly, the purpose of democracy is so to organize society that each member may develop his personality primarily through the activities designed for the well-being of his fellow members and of society as a whole. . . . Consequently, education in a democracy, both within and without the school, should develop in each individual the knowledge, interests, ideals, habits, and powers whereby he will find his place and use that place to shape both himself and society toward ever nobler ends.¹

Continuing, the Committee on the Reorganization of Secondary Education lays down seven "main objectives of education," as follows :

(1) Health. (2) Command of fundamental processes. (3) Worthy home-membership. (4) Vocation. (5) Citizenship. (6) Worthy use of leisure time. (7) Ethical character.²

The Committee, after emphatically endorsing the six-three-three plan of school organization, then proceeds to sketch the nature of the work that should be demanded in the six upper grades in order that the given objectives mentioned may be realized :

(1) *Health.* Health needs cannot be neglected during the period of secondary education without serious danger to the individual and the race. The secondary school should, therefore, provide health instruction, inculcate health habits, organize an effective program of physical activities, regard health needs in planning work and

¹ "Cardinal Principles of Secondary Education," Bureau of Education, Bulletin No. 35, page 9, 1918.

² *Op. cit.*, pages 10-11.

play, and coöperate with home and community in safeguarding and promoting health interest.

(2) *Command of fundamental processes.* Much of the energy of the elementary school is properly devoted to teaching certain fundamental processes, such as reading, writing, arithmetical computations and the elements of oral and written expression. The facility that a child of twelve or fourteen may acquire in the use of these tools is not sufficient for the needs of modern life. This is particularly true of the mother tongue. Proficiency in many of these processes may be increased more effectively by their application to new material than by the formal reviews commonly employed in grades seven to eight.

(3) *Worthy home-membership.* Worthy home-membership as an objective calls for the development of those qualities that make the individual a worthy member of a family, both contributing to and deriving benefit from that membership.

This objective applies to both boys and girls. The social studies should deal with the home as a fundamental social institution and clarify its relation to the wider interests outside. Literature should interpret and idealize the human elements that go to make the home. Music and art should result in more beautiful homes and in greater joy therein. The coeducational school with a faculty of men and women should, in its organization and its activities, exemplify wholesome relations between boys and girls and men and women.

(4) *Vocation.* Vocational education should equip the individual to secure a livelihood for himself and those dependent on him, to serve society well through his vocation, to maintain the right relationships toward his fellow workers and society, and, as far as possible, to find in that vocation his own best development.

This ideal demands that the pupil explore his own capacities and aptitudes, and make a survey of the world's work, to the end that he may select his vocation wisely. Hence, an effective program of vocational guidance in the secondary school is essential.

Vocational education should aim to develop an appreciation of the significance of the vocation to the community, and a clear conception of right relations between the members of the chosen vocation, between different vocational groups, between employer and employee, and between producer and consumer. These aspects of vocational education, heretofore neglected, demand emphatic attention.

TRAINING FOR COMPLETE AND WORTHY LIVING

TRAINING IN	KNOWLEDGE	HABITS	IDEALS	APPRECIATIONS
1. HEALTH AND PHYSICAL DEVELOPMENT	Usable information concerning everyday hygiene. Personal, public, and vocational hygiene	Habits of being clean, of avoiding infection, of exercise, of working for public health, of eating right food, etc.	Convictions and enthusiasms concerning personal body condition and public health	Prejudices in favor of hygienic conditions and against bad conditions. Healthful attitude and interest
2. THE FUNDAMENTAL MENTAL PROCESSES	Reading, writing, arithmetical computations, elements of oral and written expression, getting on with others, etc.	Skill in reading, writing, speech, spelling, figuring, construction, behaving, self-care, using mother tongue, etc.	Ideals of respect for others, of mastering fundamentals, correct use of mother tongue, etc.	Interest in school activities, desire to achieve, etc.
3. WORTHY HOME-MEMBERSHIP	Those qualities which make the individual a worthy member of a family. The home as a social institution and its relation to wider interests outside, etc.	Skill in assuming home responsibilities, in practicing household arts, household management, care of premises, preparing household budgets, etc.	Ideals of importance and place of parent, of contributing to benefit of other members, of home responsibility, of home standards, etc.	Interest in the home, estimate of values of home attitudes, of the value of a well-appointed home, of the labor and skill required to maintain it, etc.
4. VOCATION: AGRICULTURAL, INDUSTRIAL, COMMERCIAL OR PROFESSIONAL	Knowledge of industrial conditions, of actual work and a specific trade. Economics, manual arts, vocational guidance, etc.	Desirable habits gained by doing the work and conforming to demands of the work, etc.	Ideals of honest work, industry as social service, craftsmanship.	Appreciation of relation of one's work to world's work, right attitude toward associates, appreciation of relative values

5. WORTHY CITIZENSHIP, COMMUNITY, STATE, AND NATION	Knowledge of elementary social sciences, including community civics. Study of lives of worthy citizens	Training in school and community citizenship.—Participation in group activities, coöperation	Ideals of contributing to community welfare, of coöperation, leadership, etc.	Loyalty to ideals of civic righteousness, interest in community problems. Intolerance of evil conditions in community life
6. RIGHT USE OF INDIVIDUAL AND SOCIAL LEISURE	Knowledge of games, plays, music, art, literature, and many other ways of wholesome enjoyment	Habits of wholesome enjoyment, skill in hospitality, conversation, recreation, etc.	Ideals of worthy use of leisure, and obtaining leisure for all	Sense of importance of leisure as a part of each day. Appreciation and tastes in right use of leisure. Many-sided interests
7. ETHICAL CHARACTER	Knowledge of practical ethics. Simple sociology. The world as a brotherhood	Moral habits gained from content and method of instruction, from social contacts, from the administration of the school, etc.	Ideals of service, promotion of social happiness, honor, trustworthiness, sense of responsibility, and ideals of true democracy	Dynamic interest in personal and social purity and betterment

(5) *Civic responsibility.* Civic education should develop in the individual those qualities whereby he will act well his part as a member of neighborhood, town or city, State, and Nation, and give him a basis for understanding international problems.

For such citizenship, the following are essential: a many-sided interest in the welfare of the communities to which one belongs; loyalty to ideals of civic righteousness; practical knowledge of social agencies and institutions; good judgment as to means and methods that will promote one social end without defeating others; and, as putting all these into effect, habits of cordial coöperation in social undertakings.

(6) *Worthy use of leisure.* Education should equip the individual to secure from his leisure the re-creation of body, mind, and spirit, and the enrichment and enlargement of his personality.

This objective calls for the ability to utilize the common means of enjoyment, such as music, art, literature, drama, and social intercourse, together with the fostering in each individual of one or more special avocational interests.

(7) *Ethical character.* In a democratic society, ethical character becomes paramount among the objectives of the school. Among the means for developing ethical character may be mentioned the wise selection of content and methods of instruction in all subjects of study, the social contacts of pupils with one another and with their teachers, the opportunities afforded by the organization and administration of the school for the development on the part of pupils of the sense of personal responsibility and initiative, and, above all, the spirit of service and the principles of true democracy which should permeate the entire school — principal, teachers, and pupils.

The Committee likewise declared the immediate aims of the school to be: knowledge, powers, interests, ideals, and habits.

These proximate aims of the school are, with slight modifications, illustrated by the table on pages 92 and 93.¹

Snedden states the objectives of the school — particularly of the school that takes charge of boys and girls in the early

¹ *Course of Study and Manual of Instruction*, Book Four, of Kalamazoo, Michigan, 1921.

stages of adolescent development — to be, in his opinion, as follows: ¹

In the light of present experience, it seems highly desirable to classify the objectives of the education that is adapted to children of from twelve to fourteen years of age into at least two groups, according to the presence or absence in each study or phase of study of certain fundamental characteristics. A few concrete cases will make this clear.

In teaching spelling (for example), the outcome expected on the part of the pupil is a certain quite definite and easily recognized ability to *do*, to *execute*, to *express in action*, and the learning process cannot be terminated economically until this end is achieved. On the other hand, the learning achieved in hearing a recital or witnessing a dramatic performance (and we are agreed that some form of learning is thus achieved) can be subjected to no profitable test of expression, of doing. We expect absorption, assimilation, growth, as results, but the final outcome is so remote from the original stimulus that we do not, ordinarily, seek to trace connections.

For the sake of convenient classification, let us call the first type of learning the alpha type, and the second the beta type. Let us repeat that the conspicuous result expected in the case of the alpha type is ability to do, to express in action, while the most tangible result expected in the case of the beta type is appreciation or, in one sense of the word, interest.

In the seventh and eighth grades, it is probably in accordance with sound pedagogy so to teach arithmetic, penmanship, composition, spelling, and, presumably, grammar that these subjects should properly fall in the alpha class. On the other hand, literature, science, and civics are, or doubtless ought to be, so taught as properly to belong to the beta class.

History, geography, music, art, and practical arts seem to be composite. It is manifestly important, for example, that certain phases of history and geography should be so definitely taught that the resulting fixed knowledge becomes as available and inerrant as should be knowledge of the multiplication table. But it is intolerable that all geography and history as organized for children from

¹ Snedden, David, "Flexibility of Courses for Youths Twelve to Fourteen," *Educational Administration and Supervision*, Vol. 2, pages 219 *et seq.*, April, 1916.

twelve to fourteen years of age should be so taught. Most of the supplemental material used, and indeed much of the contents of the textbooks in current use, also, should be read, talked over, and the resulting impressions assimilated, but no fixed and instantly usable knowledge need be expected in these cases. Hence the proper organization of these subjects should involve a conscious and definite differentiation between alpha and beta portions of the teaching units or phases.

Snedden also thinks music and art are composite and hence should be taught so as to yield both alpha and beta types of values.

Briggs expresses the aim of the junior high school thus :

Clearly an intermediate period of education, beginning one or two years before the law releases any pupil from study . . . [should] attempt at least five things : first, to continue, in so far as it may seem wise and possible, and in a gradually diminishing degree, common integrating education; second, to ascertain and reasonably to satisfy pupils' important immediate and assured future needs; third, to explore by means of material in itself worth-while, the interests, aptitudes, and capacities of pupils; fourth, to reveal to them, by material otherwise justifiable, the possibilities in the major fields of learning; and, fifth, to start each pupil on the career which, as a result of the exploratory courses, he, his parents, and the school are convinced is most likely to be of profit to him and to the State.

Briggs further elaborates his ideas respecting these five-fold objectives as follows :

It is probable that even in the best schools there will remain after the sixth grade many details which, because of the generous conception as to what all citizens should know or because of the immaturity of pupils, have not been taught. These, when presented in the seventh, eighth, or even more advanced grades, continue the integrating effect of education and also result in the desirable gradual change toward complete differentiation. It is quite possible that the amount of this common integrating education should be determined by the holding power of the school.

Continuing, he says, respecting the first specific objective :

It must not be thought that this first purpose of the school is achieved only by the ordinary curricular matter, such as mathematics, civics, or English ; toward it contributions are made also by extra-curricular activities, such as school assemblies, clubs, and pupil organizations for participation in the government of the school . . . and in addition by association in the school of children having different origins and aims, but making and sharing in a common atmosphere with its traditions of prejudices and ideals.¹

Surely few would deny that this first great aim is a valid one. Despite individual differences in interests, capacities, and powers, human nature is fundamentally uniform. There certainly can be no truly satisfactory democratic society unless the various members composing it possess common ideals, common interests, common attitudes, common conventions, common stocks of knowledge, and common ways of procedure. As Bagley pointed out some years ago, it is doubtful if, with the great diversity of racial inheritances that enter into the complex of American society, six years of elementary training are sufficient for the purpose of integrating all forces into a body politic of the most desirable kind. A part of the effort and of the organization of the junior high school must assuredly be directed to a supplementation of the integrating processes begun in the lower grades. Perhaps, too, as Briggs says, the extent to which this earlier aim shall be continued shall be determined by "the holding powers of the school." Surely, if education is the potent and beneficent force American laymen and educators believe it to be, none can secure too great an amount, provided only it be of the right sort and adapted to individual needs. Therefore, as soon as it becomes evident that the common, formal instruction of an elementary type is no longer proving valuable to certain pupils and that their withdrawal from school is impending,

¹ *The Junior High School*, pages 162-163.

the common integrating treatment should be differentiated. The change should not be made abruptly. Here, as elsewhere, a judicious mingling of the old and the new will prove wisest. Nevertheless, it is better to hold a pupil in school by means of a schedule of work that is wholly individualistic in character than not to retain him in school at all. The problem, therefore, becomes one largely of personal adjustment.

Briggs's second objective, namely, "to ascertain and reasonably to satisfy pupils' important immediate and assured future needs," likewise is well established in reason and common sense. Schools should not be guided in their practices solely by considerations of expediency. The commercialized vocational school of the day is likely to overstress the importance of immediate results; the school of past ages was accustomed to lay too great an emphasis upon future returns. The public school — particularly the junior high school — must judiciously combine the present and the future welfare of pupils in its plan. What is important for one pupil, however, may not be equally important for another. Moreover, the "assured future needs of pupils may be discovered only after a careful and continued study of local conditions, the intentions of pupils, and the histories of older people who have developed in similar surroundings."¹ Indeed, even this study will not enable one to form unequivocal deductions. The variable factors that operate in life are too numerous to warrant positive assertions respecting any problems in which they occur. The wise man analyzes the conditions as fully as circumstances will permit, arrives at a judgment, proceeds to act in the light of the facts, and then, as the philosopher Royce advised, "has no regrets."

Such must be the procedure of school authorities. None may positively declare what is the one best plan of action for any pupil. In action, by means of a thoroughly worked-out

¹ *Op. cit.*, page 164.

system of life and school guidance, sympathetically administered by individuals who have had the advantage of experience and special training, the best plan for each pupil will appear. Such a system of guidance should make use of standardized intelligence tests, physical and medical reports, school memoranda of former teachers, the advice of parents, social surveys, governmental and firm reports respecting various industries, trades, and professions, and the judgments of specialists in the several fields of activity.

Among the means that should be used to give pupils clearer views of what the world has to offer are the courses of study, assembly or auditorium talks, home-room discussions, books, magazines, motion pictures, stereopticon views, wall pictures, charts, maps, graphs, exhibits, junior chambers of commerce, school visits to places where various industries are in operation, school excursions to public institutions, public works, and public monuments, and the constant correlation of school instruction with out-of-school practices.

Of all the functions of the junior high school, that which seeks to aid pupils in discovering their own capacities and limitations, interests and distastes, powers and weaknesses, is, in the judgment of the writer, the most important.¹ It is this function, above all others, that justifies the reorganization of schools on a new basis. Not that the traditional organization does not, to a certain degree, effect this purpose; but, at best, its attainments are less than is desirable. To segregate adolescent pupils in a school by themselves; to surround them with influences that elicit their natural responses; to afford them opportunities to browse in many fields of recorded endeavor; to permit them to try their strength in many different ways; to enable them to compete with other boys and girls of their own age; to permit them to

¹ This is Briggs's third objective.

initiate, organize, and administer projects; to employ methods of teaching that challenge their best efforts in thought and action; to stimulate and to develop their best instincts by encouraging self-expression, and by furnishing opportunities to see life as it is and to live it in school as ultimately it must be lived out of school — this is the work of the junior high school. To be sure, in making this exploration of pupils' personality and individuality, the material used to accomplish the end should have a positive value; but if, as the Committee on the Reorganization of Secondary Education declares, "The purpose of democracy is so to organize society that each member may develop his personality primarily through activities designed for the well-being of his fellow members and of society as a whole,"¹ then the exploratory material suitable for one pupil may be equally suitable for all — the single warning being that every pupil should be given access to the general try-out courses and activities offered to others.

Obviously, this kind of professional care demands that a program of studies of wide range be offered in the school; that many introductory and try-out courses of short duration be provided;² that the administration of the school be such that pupils not only shall have opportunity to test themselves in many fields of work but shall be encouraged and required to do so; that many practical opportunities for doing, as well as learning, be furnished; and that use be made as fully as possible of supplementary, collateral, and quasi-educational agencies.

The fifth objective enumerated by Briggs, namely, "to start each pupil on the career which, as a result of the exploratory courses, he, his parents, and the school are convinced is

¹ "Cardinal Principles of Secondary Education," Bulletin No. 35, page 9, 1918.

² Briggs's fourth objective.

most likely to be of profit to him and to the State," is essentially valid, provided the process is not begun at too early a date. The length of time needed to give an exploratory education no doubt varies with different individuals and with different school systems. It must not be forgotten, however, that the fundamental purpose of the junior high school is liberal culture on an elemental plane. The junior high school is to the individuals of the early adolescent stage of development what the college of literature, science, and the arts is to the prospective student of law or medicine. Both schools lay foundations of a general character and relate but incidentally to special vocations.

Koos, in *The Junior High School*, shows what the functions of this type of school are thought to be by representative school administrators and educational leaders. His formulation supplements the deductions just given. He believes in realizing a democratic school system by means of the following practices: ¹

- (1) Retention of pupils; economizing the time of pupils; recognition of differences between pupils; the exploration of subject matter for the sake of guidance of pupils; and vocational education.
- (2) Recognizing the nature of the child.
- (3) Providing conditions for better teaching.
- (4) Securing better scholarship.
- (5) Improving the disciplinary situation and socializing opportunities.
- (6) Effecting financial economy.
- (7) Relieving the building situation.
- (8) Continuing the influence of the home.
- (9) Hastening reforms in grades above and below.
- (10) Normalizing size of classes.
- (11) Relieving teachers.

Inglis gives the main objectives of secondary education as (1) the social-civic; (2) the economic-vocational; and

¹ *Op. cit.*, page 18.

(3) the individualistic-vocational. To realize these objectives, he states that the school should exercise the following six functions: ¹

The integrating function.	The adjustive function.
The differentiating function.	The propædæutic function.
The selective function.	The diagnostic function.

For Inglis, each of these functions should operate in the junior high school as well as in the senior high school. The integrating function should tend to foster social solidarity; the differentiating function should aid in developing personality; the selective function should sift out the more fit from the less fit; the adjustive function should empower individuals to relate themselves to the "everchanging demands of dynamic society"; the propædæutic function should prepare the pupil to continue his studies into their more advanced stages; and finally, the diagnostic function should help the pupil to discover his own elements of strength and weakness and to plan his life career accordingly.

SUMMARY

Thus, it may be said by way of summary that the junior high school should endeavor:

- (1) To check the withdrawal of pupils from the seventh, eighth, and ninth grades by providing school work that is both more interesting and educationally more valuable than that furnished by the traditional school; and by organizing and administering this work through methods that are more in keeping with the natures of adolescent pupils than are the methods commonly employed in the traditional elementary schools and senior high schools.
- (2) To encourage and assist pupils to discover their own permanent interests, their own reaches and limits of capacities, and their own best modes of self-expression,

¹ Inglis, Alexander, *Principles of Secondary Education*, pages 367 et seq.

and then to assist them to choose life careers in which (so far as enlightened human judgment is able to forecast) they can be most happy and contented and at the same time most socially effective and serviceable.

- (3) To remove, or at least to minimize, the personal and social dangers which inhere in the instincts of adolescence, and to convert raw potentialities into habits that make for good citizenship, workmanship, sportsmanship.
- (4) To shorten the period of training for some few individuals who have before them a long course of systematic schooling, by permitting them to begin their differentiated education at an earlier age than has been customary in the past.
- (5) To provide a truly realistic education for all youths between the ages of twelve and sixteen, and, while adapting this training to individual needs and interests, so to administer it that each shall come to possess at least an appreciative knowledge of all the major activities of humanity and shall develop a tolerance and a sympathy for individuals outside his own social group.
- (6) To interweave pre-vocational instruction and liberal culture so artfully that each shall have the effect of clarifying, deepening, and making truly significant and effective the elements of learning contributed by the other.

CHAPTER SEVEN

THE PROGRAM OF STUDIES

THE chief determinative factor of the character of a school is its program of studies. But in planning a program of studies certain preliminary considerations need to be taken into account and certain foundational principles need to be established. These have to do with the offerings; the time allotment of the various courses; the places assigned to the several courses in the schedules; the election of courses by pupils; the determination of curricula; and similar topics.

THE CONTENT OF THE COURSE OF STUDY

Superintendent E. H. Drake of Kalamazoo, Michigan, says :

The question of what should enter into a course of study is ever a puzzling one to those who have to do with the planning or organization of such a thing. If we accept the now general view that the school is an institution which not only prepares for life but *is* life, we have very wide limits and the curriculum becomes very inclusive. But if we accept another theory that the curriculum is the embodiment of race experience to be made over in so far as possible into present-day life experience, perhaps the matter is simplified somewhat. The subjects of study then become but phases of life about us—a thing that teachers and superintendents too often fail to take into consideration, and thus lay the foundation of many mistakes. These phases of life or subjects of study constitute largely the life of the school. The school is the institution which takes the child at an early age and for a number of years in connection with other institutions and influences, broadens his experiences, strengthens his powers, his capacities, and seeks to advance him toward the goal set up as the purpose of his education. In this process it should make him better able to adjust himself to his environment and make it minister to his physical, intellectual, moral, and æsthetic nature. One point, therefore, that should not be overlooked is that the schools

should be organized and conducted to give the child the greatest possible command over the things that are round about him. In this connection it should be said that it is but fair that he ask to be given some insight into vocations, some guidance and some training toward a vocation.¹

James M. Glass, in formulating a plan for the guidance of school officers in Pennsylvania (1922), presents his views as follows :

The junior high school program of studies should be a resultant of several forces. It should be made up, in part, of a continuation of the elementary school curriculum, but a review of these courses, i.e., a new view through articulation of elementary and secondary courses ; in part, a preview of secondary school courses of study, but a rearrangement of such courses in their "simpler aspects, deferring the refinements" to later senior high school grades ; in part, a pre-vocational content from the industrial and commercial fields ; and, finally, a liberal amount of social science materials and social and civic activities to the end of giving to the early adolescent a "self-conscious social adjustment." This transitional unit of the public school system must preserve its contacts and become a composite product of the forces which precede and follow it.

It is, therefore, the difficult mission of the junior high school to continue a program of studies carried through the six years of the elementary school, modify and enlarge this program for the realization of its own purposes, and in turn prepare for advanced types of curricula in the senior high school. It is plain that this can be done only through successive periods in the transitional process. Briefly, these periods are four in number.

A. Adjustment. Low Seventh.

A period of *adjustment* for the very young and immature adolescent of twelve years of age. He must be adjusted to a new school organization, and to a new type of school administration. It would seem wise, therefore, to subject him during the first semester to as little change as possible in his program of studies. Such change as is advisable should be restricted to the inevitable modifications in the courses of study which are consequent to

¹ *Course of Study and Manual of Instruction for the Public Schools of Kalamazoo, Michigan*, Book 4, 1921.

enlarged school facilities and departmentalization. There should be no change in the program of studies occasioned by the introduction of electives. In fact, the tabulated report of the questionnaire shows over a 50 per cent vote in favor of postponing electives to the eighth year. Present practice gives little support to any seventh year elective.

B. Exploration and Preview (apperceptive basis of secondary courses). High Seventh and Low Eighth.

There should be a period of *exploration*, when there is a *preview* of the specialized secondary school courses which distinguish one high school curriculum from another, and when prevocational try-out is provided for drop-outs. This first general view of secondary school subject matter is restricted to the "simpler aspects" of the whole subject field prior to any attempt to cross-section it into its parts. This general introductory course offers opportunity for exploration of aptitude for the whole subject field and for a preview of apperceptive basis for the cross-sections of the subject. Properly, therefore, junior high school courses are designated as general mathematics, general science, world history and general social science, prevocational courses, junior business training, etc.

C. Provisional Choice of Electives. High Eighth.

Following the period of exploration and preview there should be a period of *provisional choice* of electives. During this period facility of cross-over between electives should be promoted by every administrative device possible, to the end of guaranteeing that evidence of unfitness for an elective will be followed by effecting a change of electives. In case this period of provisional choice does not extend beyond one semester, there would be justification for postponing promotion requirements in electives during this semester.

D. Stimulation. Ninth Year.

Finally, in the accomplishment of the purpose of the junior high school to serve as a transitional stage in the public school system, there must be a period of *stimulation* to facilitate transition to the senior high school. The ninth year of the junior high school is primarily for the purpose of making desirable in the estima-

tion of each pupil advancement into the next higher type of school. The ninth year carries on the program selected after the experiment of the two previous grades. This stimulation is largely by the agency of the particular electives chosen during the periods of exploration and provisional choice.¹

The following statement appeared in an article by W. C. Bagley and C. H. Judd:

The first principle, then, which we reach in our consideration is the principle that all organization within the schools should be judged as appropriate to the American system of education just in the degree in which it makes for continuous and uninterrupted opportunity for every pupil.

The second general principle is closely related to the first. Within each school unit there has been and is appearing in still larger measure an enrichment of the course of study and of the opportunity offered to the pupil.

The enriched program must have one characteristic above all others. It must be appropriate to a democracy. Here we come to a point in the discussion where it is easy to fall into disagreements. The world is still experimenting with democracy. We are striving to develop a democracy in our other social institutions, as, for example, in our industries. How difficult it is to reach a generally acceptable definition of democracy appears if we study industries and industrial legislation and note the many shades of divergent opinion and conflicting practices.

Out of the uncertainties which surround this part of our discussion we may expect fairly universal assent to three general statements. First, the future must see greater emphasis than has the past on studies of community life and community needs. And the term "community" must not be narrowly defined. The course of study must be enriched to include intensive study of our nation and its meaning to our citizenship and to the world. Secondly, the future must see the enriched course providing a broad, sure foundation for the practical life of the individual. Again, there must be no narrow limitation of the individual, no training for a single type of life. This is not a plea for narrow trade training; it is rather an assertion that there must be a vigorous effort toward the development of a comprehensive view of industry, so that the individual

¹ Circular, Department of Public Instruction, Pennsylvania, 1922.

may choose his career after a broad view of democratic opportunity. Thirdly, the enrichment of the course must aim consciously at the destruction of those provincialisms and class prejudices which have worked in the history of nations in the past, counter to the interests of democracy. Ignorance of other tasks than one's own breeds lack of sympathy and results in the separation of group from group. Intelligence regarding others brings with it sympathy and coöperation.

Each of the three points outlined in the last paragraph invites one to compose a chapter on educational possibilities. This is not the appropriate place for a full discussion of these matters. In order to avoid ambiguity two negative statements must be made.

First, a course of study is not broad or enriched in the sense in which the term "enrichment" is used in this article if it is a limited course preparing for a trade. Nor is the fact lost to view that there is a legitimate demand in the experiences of many boys and girls for a trade training. It is, however, contended, with unlimited emphasis on the needs of a democracy, that whenever trade training is given it should be accompanied just as far as possible by broadening, sympathy-cultivating instruction. To give early a limited occupational training will tend (1) to set up class distinctions, and (2) to deprive large numbers of children of the broad basis of general and liberal training, which is essential to successful democracy. Every effort to reorganize the work of the upper grades should start from the fundamental principle that effective democracy implies the highest possible level of trained and informed intelligence in all of the members of the democratic group.

Secondly, there are certain forms of enlargement of the course of study which defeat rather than promote the ends of education. Thus if more subjects are introduced into the course than can be assimilated by the pupils, there will follow a distraction which will be quite as disastrous as any limitation that could be put on the course. Pupils will fail to learn the lesson of concentration of attention; thoroughness and mastery will have no meaning for them; they will carry away a confused general idea of the materials they study, and they will fall into a type of superficial thinking which is one of the perils of the modern course of study.

Not only so, but there is danger in the enlargement of the course of study that subjects will be introduced which are in form far beyond the maturity of the pupils. The old-fashioned course of study

undoubtedly made the mistake of assuming too little capacity on the part of the pupils. The new and more ambitious programs are sometimes reckless in the introduction of advanced courses. If, for example, algebra and geometry are to be brought down into the elementary grades, they must be modified in their content and in their mode of presentation as compared with the same subjects when taught in the high school. There is no surer way to fail in the seventh and eighth grades than to carry back without change a high-school course in algebra and attempt to administer it in a formal way to immature pupils. These examples should serve as warnings against an irrational and ill-considered enlargement of the course of study.¹

Here is expert opinion that is difficult to oppose. "Continuous and uninterrupted opportunity for every pupil" and "an enrichment of the course of study" — these, surely, are matters to which all enthusiasts of the reform program can subscribe.

It has long been evident that if the junior high school is to justify the expectations of educational reformers and serve the ends established for it, the program of studies must not be narrow and formal. Neither may the school justify itself with an array of subjects differing slightly from those found in the traditional elementary school. A veritable wealth of offerings of varied types must be furnished. Indeed, to the degree that an enriched and suitable program of studies is provided, to that degree will the school approximate the true ideal of a junior high school.

Nevertheless, no single program of studies can be formulated that will meet all conditions. Programs of studies must always grow out of local as well as national and universal needs. It is as absurd to draft a program of studies for schools in general as it is to prescribe a given medicine for diseases in general. Each school district has special problems, interests, and limitations which must be taken into account.

¹ *School Review*, pages 313 *et seq.*, May, 1918.

Hence it follows that the first step in drafting a program of studies for a given community is to conduct a thorough community survey. Such a survey should reveal the number of the inhabitants, the economic resources, and the cultural interests of the community; the school census, school enrollment, and school attendance; the existing program of studies, the percentages of school losses, school retardations, school accelerations, and school graduates. It should likewise afford information concerning the customary post-school occupations of the young people, the articulate requests for school changes, the status of the school as judged by standardizing agencies, and other data. From these facts should be determined in as scientific a manner as possible what goals the pupils are likely to set for themselves after leaving school; what subjects of study will contribute to their practical and cultural interests; how these studies should be organized and presented in order to yield the best results; and the ability of the community to finance the program thus suggested. Not that only such subjects as local considerations suggest should be included in a program. Quite the contrary. Besides local and personal interests, there are national and general interests which should be considered.

Hence the program of studies ought to be built on a quadrilateral foundation:

- (1) The individual interests of the pupils.
- (2) The community needs and resources.
- (3) The national purposes and objectives.
- (4) The welfare of society in general.

ADMINISTRATION OF THE PROGRAM

Another problem relating to the program of studies is that concerning the intensity and continuity of the subjects

that are admitted to the program. Shall, for example, Latin, if provided at all, be offered for a single year, or for two or three years? Shall it be so organized as to require a meeting of teacher and pupils every day, or at less frequent intervals?

These questions attach themselves inseparably to others: thus, for example, the length of the class period, the mode of utilizing the class period, and the number of days in the school year. For obviously it is conceivable, at least, that three class periods of sixty minutes each per week extending over two hundred days may yield vastly more effective results than five class periods of forty minutes each extending over a period of only one hundred and eighty days.

The socialized recitation is, in the light of the best evidence at hand, the most desirable type of recitation period for the junior high school. The socialized recitation rests on the belief that the class hour should be utilized, not primarily for the sake of testing pupils and thereby making the work depend upon memory alone, but for the purpose of developing thought, clarifying concepts, deepening interests, giving practice in expression, and making permanent and usable the impressions that have been formed. In other words, instead of seeking almost exclusively to discover what pupils know or do not know about a lesson, a teacher, during the class period, should interpret facts, clarify ideas, illustrate principles, refine sentiments, and train pupils to apply knowledge to the solution of real problems and to the enrichment of personal experiences. Work of this kind is accomplished, not through the inactivity of pupils, but by means of their participation. Thus it appears that the socialized recitation is little or nothing more than a study period in which, under the guidance of the teacher, topics are developed largely through the give and take of ideas contributed by the pupils themselves.

The conversational, developmental type of class exercise

is, as stated before, suitable for adolescent boys and girls, provided only that the teacher have the proper qualities of leadership. When this method is followed, classroom recitation hours tend to lose for pupils their formal aspects. The physical and mental strain frequently caused by the inflexibility of the method used in traditional recitation periods is diminished. School becomes play rather than work, for the end seems to the pupil to be in the activity itself rather than in a remote objective. The fatigue point is not so quickly reached and the class exercise can readily be extended to fifty or fifty-five minutes without endangering the health of the pupils or losing their interest. Moreover, with the class period constituting the chief working period for pupils, little home study is required or desired. Thus a longer school day is justified.

All things considered, there seems to be warrant for advocating for typical school communities a program of studies of ample scope, with courses distributed over the three years of the junior high school period in accordance with the needs and resources of the community; with class periods of approximately one hour in length; with the number of weekly class meetings varying with the importance of the subject and the rules of pedagogy; with full use of the socialized recitation as an agency for teaching; with a longer school day; and with small demand on the pupils for home study.

CURRICULA

In addition to the problem of scope or range of subject matter, of the continuity with which the courses are organized within the several fields of interest, and of the number of weekly recitation periods, three other fundamental problems exist in respect to the teaching materials that constitute the program of studies. These are:

- (1) The number and types of curricula to be provided, or

the modes of arranging courses so that they shall tend to prepare pupils for fairly definite goals or careers in more advanced schools or in life.

(2) The determination of the constant and the variable factors that enter into the several curricula.

(3) The flexibility of administration of courses and curricula whereby immature choices may later be revised without injustice, if circumstances make revision desirable.

Reference has already been made to the number and kinds of physical, intellectual, emotional, and practical differences that exist among individuals. One of the chief functions — if not the chiefest function — of the junior high school is to discover these differences and to administer the school work so as to develop personality to its highest practical degree in each individual. Such a conclusion obviously demands that more than a single curriculum shall be provided in the schools. How many and what curricula shall be offered is a debatable question. Judging from the experiences of many administrators, four or five curricula are ample. More than this number tend to confuse the pupil; fewer than this number take individual differences too little into account. The curricula that should without fail be provided are: (1) the college preparatory; (2) general; (3) commercial; (4) industrial; and (5) household arts. In addition, it may prove desirable for certain cities, or for particular schools in certain cities, to provide one or more specific trade curricula for pupils who will never enter the senior high school but who will soon enter — possibly before completing the junior high school course—upon the business of wage-earning.

Moreover, the number and kind of curricula will not infrequently vary in the different schools of the same city. Whenever schools are located in sections of the city characterized by interests separate and distinct from those of other

sections of the city, differentiating curricula should be provided. It is, for example, conceivable that in one district the interest of the inhabitants is primarily literary and cultural; in a second section, commercial; in a third section, industrial; and, in other districts, specifically vocational. Within each of these districts, therefore, the curricula should conform closely to the paramount needs.

J. H. Newlon, former Superintendent of Schools in Lincoln, Nebraska, using that city as an example, expresses the idea thus:

I doubt very much whether it will be possible to maintain the same kind of junior high school, as regards curricula, in all parts of our cities. I can illustrate by the city of Lincoln, Nebraska. In Lincoln, at the present time, there are three junior high and pre-vocational school centers. Of these three, the Hayward school center is located in the German and Russian district, the Bancroft center is located in an industrial part of the city, while the McKinley center is located in the old high school building in the central part of the city, and is easily accessible to the entire population. It is perfectly natural and proper, therefore, that industrial and commercial curriculums should be emphasized in the Hayward and Bancroft schools while, in the McKinley School, these curricula should be paralleled by a liberal arts curriculum for an accelerated group of students who are destined for the college preparatory courses in the high school and after high school for the colleges, and eventually for leadership in the business, professional and social life of the community.

Often a specialized junior high school meeting the needs of a particular community will popularize itself in that community and justify the junior high school idea in the eyes of the entire city. Statistics show that the Hayward and Bancroft schools in Lincoln, with their commercial and practical arts curriculums, are holding more students in the seventh, eighth, and ninth grades, and are sending more students to high school than formerly. The way must be kept open, of course, in all schools for entrance to the senior high school, but a wise superintendent and board will adapt the junior high school, as far as possible, to local conditions.¹

¹ *Educational Administration and Supervision*, Vol. 3, No. 5, May, 1917.

An important decision relates to the constant and variable elements in the several curricula. Surely, if the junior high school is to continue the integrating influences of education started in the elementary school, a considerable portion of the curricular offerings will be uniform prescriptions for all normal children, irrespective of the future. On the other hand, the interests of individuality require that not all work shall be common. What subjects, therefore, to prescribe for all; what to permit as alternative selections; and what to leave to election, are unsettled questions. Seemingly, little or no differentiation should be permitted in the seventh grade; some should be allowed in the eighth grade; and considerable should be permitted in the ninth grade.

For pupils greatly retarded in the school work and for those for whom the more formal studies in the school have little interest, individual curricula should be arranged. Certainly, the junior high school is no place for a Procrustean administration of work — particularly when it affects the ungradable pupil.

Finally, the administration of the several curricula must not be so conducted as to prevent absolutely all revision of curricular choices when once made; nor allowed to operate in such a way as to penalize an individual unnecessarily when permission to make changes is granted. The junior high school being, primarily, a testing place, opportunity must be allowed for explorations. Such explorations must include prevocational and, sometimes, vocational work, as well as the more general literary, scientific, and artistic studies. Whenever a pupil, notwithstanding an honest effort carried on for a reasonable period of time, has shown his utter incapacity or distaste for a self-selected subject of study, he should be permitted to discontinue his study of that subject and allowed to begin again in a new field. Nor is "a reasonable period of time" to be taken to mean the

completion of a fixed amount of work. Six weeks may be ample time in which to test a pupil's powers; indeed, in some cases a shorter period may suffice.

When transferences from one curriculum to another, or from one course to another, are allowed, due credit for work successfully pursued under the one schedule should be accorded in the new one. There surely is little justification for requiring two years' work in any given subject before it shall be treated as worthy of recorded credit. A single semester in a foreign language or mathematics or any other subject should yield educational value. Therefore, while transference from one curriculum to another ought not to be permitted for trivial reasons, it ought not to be forbidden entirely. When such change of course is allowed, the school credits that have been earned should be accepted at face value, provided they are such as contribute to the ends sought in the second curriculum.

In planning curricula, it seems reasonable to assume that introductory, general courses shall precede courses of a more specialized character. And yet, until the junior high school idea was advanced, few schools organized their work on that basis. Relatively few do so even today either in the junior high school or in the traditional four-year high school. The reform plan suggests that a course dealing with the elements of science in general be given before any special courses in physics, chemistry, or biology are taken up; likewise that a general survey of elementary algebra and simple geometry be had before differentiated courses are pursued; and that a course concerning itself with various aspects of manual arts be taken before work in forging, printing, or carpentry is pursued intensively. The principle is valid in respect to all, or nearly all, branches of learning provided for in the school.¹

¹ Many colleges and universities are following this plan today. For example, introductory courses or general courses touching the larger aspects of the entire field of thought are commonly found in economics, sociology,

From the foregoing considerations it is obvious that before any program of studies can be intelligently formulated for the junior high school the following questions must be asked :

(1) What subjects, if any, which are at present found in the seventh, eighth, and ninth grades should be uprooted entirely and abandoned ?

(2) What subjects, if any, which are at present found in the seventh, eighth, and ninth grades should be transplanted to other divisions of the school system ?

(3) What subjects, if any, which are at present found in the seventh, eighth, and ninth grades should be retained ?

(4) What subjects, if any, which are at present generally found in grades other than the seventh, eighth, and ninth should be transposed and included in the junior high school grades ?

(5) What new material which at present is found, if at all, only rarely in any school curriculum should be generally introduced into the seventh, eighth, and ninth grades ?

Possibly no subject that has traditionally found a place in the seventh, eighth, and ninth grades is so worthless as to warrant its being condemned and eliminated entirely from all school programs, but in particular school systems certain subjects may deserve that fate.

That certain subjects found in the seventh, eighth, and ninth grades may very wisely be transplanted to other divisions of the system seems to be the opinion of many students of education. Specifically speaking, it is very questionable whether English grammar treated as a separate course in the eighth grade, ancient history in the ninth grade, and physical geography as a specialized subject in the ninth grade, should not be transferred to the upper grades of the philosophy, psychology, literature, history, science, and most other subjects. The idea, too, rests on sound principles of psychology. It is hardly conceivable that the same principles do not apply equally well in the junior high school.

secondary school. Certainly, this seems to be a wise procedure, unless, being retained where they are, they are given a thorough overhauling and reorganization. English grammar is one of the most abstract subjects in the curriculum. It is an appropriate study for advanced students who have specialized in language; it is not appropriate for beginners. Not, of course, that grammatical forms shall not be taught in the junior high school; but such grammar as is taught should be very elementary. Students of language are convinced that, unless grammar is very carefully taught, it aids little in developing habits of correct speech. So much, and only so much grammar should be given boys and girls of junior high school age as they can apply in their daily common use of English. The place for a comprehensive study of grammar is elsewhere.

Likewise, it certainly is probable that ancient history, as generally taught, may best be deferred to the senior high school. The events described are so remote; the treatment of the topics is so discouragingly detailed; the stress is so often upon political, constitutional, and military topics; and the articulation of the course, taken as a unit, is frequently so loosely made with present-day interests of boys and girls, that the subject makes little or no appeal to large numbers of pupils. Moreover, the ninth grade is a grade so critical in school life that the work offered in it should be preëminently appealing to pupils' interests and should operate to develop in them a genuine love of historical reading and study. Ancient history rarely has this effect.

The fault with physical geography as a ninth grade study is not, probably, due so much to its content as to its organization and treatment. Geography is essentially an outdoors study. That is, its value and interest depend to a large degree upon the concreteness of the material used. Textbooks, charts, and even laboratories do not furnish this

element. The open fields, the running streams, the earth formations of many kinds, alone can give the concepts that are real and permanent. Nor are these likely to be developed unless an approach has already been made to the special field by means of earlier general and introductory courses in science.

Continued experimentation may show us that other subjects traditionally found in the seventh, eighth, and ninth grades ought to be removed from those grades. If this prove to be the fact, let none hesitate to apply the remedy. Programs of study should not be rigid formulations. They are means to ends. When the means do not contribute to the ends established, they should be abandoned and others substituted for them.

Investigations and reports made in recent years tend to prove conclusively that many of the subjects traditionally found in the seventh and eighth grades can be rigorously pruned of much dead and useless material. The Fourteenth and Sixteenth Yearbooks of the National Society for the Study of Education treat this problem in detail.¹ It is needless to repeat the findings and recommendations of this Society here. It is sufficient to state that, in the judgment of the Committees, each of the common school subjects can be reduced in content and can be organized in a manner that will permit the saving of much time in school work.

A practical consideration of pupils' needs suggests that the following subjects be transferred from the senior high school to the junior high school.

- (1) Foreign language, including Latin, German, French, and Spanish.
- (2) Elementary algebra and geometry.
- (3) Civics.
- (4) Commercial branches of various kinds.

¹ Published by Public School Publishing Company, Bloomington, Illinois.

- (5) Mechanical drawing and design.
- (6) Fine arts.
- (7) Prevocational or general industrial courses of several kinds.
- (8) Agricultural, horticultural, and floricultural courses.

It is a well-accepted pedagogical principle that the time to begin a foreign language is in the earlier years of life, before marked self-consciousness has become an inhibitory factor in expression and before sensitiveness to the misuses of the conventional forms of speech is acute. Moreover, in order that foreign language study shall yield the maximum of value, it needs to be pursued, at least by those who have a long literary career before them, for a maximum period of years. Beginning the study in the seventh or eighth grade permits both of these conditions to be met.

Similarly, mathematicians have advocated for years that the more elementary and fundamental portions of algebra and geometry can most advantageously be pursued by pupils in the earlier years of school life and before the more difficult portions of arithmetic are undertaken. Teachers and administrators have many times discovered the fact that pupils inapt and dull in dealing with relatively complicated arithmetical processes and problems have entered with eagerness upon the study of algebra and geometry and have shown unexpected ability in pursuing these subjects. Furthermore, scientific experiments in education seem to justify the plan of presenting a course in unified mathematics to pupils in the early stages of the secondary schools, rather than a dis-severed array of courses, each one dealing with a single phase of mathematical material.

If ever a course in civics can find justification in the school program, it ought to find that justification before the ranks of pupils have been decimated by eliminations. Granted that much of the civil government heretofore taught in the

senior year of the high school has been ineffectual in developing real qualities of citizenship, there is no excuse for permitting it to remain in that state. Neither can there be any defense for neglecting to provide an introductory course, appropriate in content, to be taken before the time when the compulsory education laws release their hold upon pupils.

Fine arts, drawing, and the various general introductory courses in industry, commerce, and other occupations need little argument to justify their claims to recognition in a school, the chief ideal of which is to enable pupils to explore the realm of human activities and interests.

In seeking to apportion to the junior high school subjects heretofore allotted to the upper grades of the four-year high school, considerable caution is needed. As Inglis states it:

One of the gravest dangers to be faced in the reorganization of the program of studies is that "high school" subjects be "pushed down" into the lower grades. Nowhere is the "word-jingle" fallacy more common than in the matter of subjects of study. One of the most important considerations involved in the reorganization of education is found in the reclassification of material in the various fields of knowledge and training that go under the general and loose terms "English," "history," "science," etc. It is high time that we realized that specific content and teaching method determine to a considerable degree the subject. The worst error we can make is to "push down" into the seventh and eighth grades "high school" subjects.¹

In the following chapters, the aims, range of content, modes of organization, and methods of administration of the subject matter to be found in the several major fields of junior high school study are discussed. The treatment is neither exhaustive nor thoroughly scientific, but it may offer suggestions that will be of assistance to administrators.

¹ Inglis, Alexander, *The Harvard Teachers Association Leaflet*, Vol. 2, No. 2, October, 1916.

In outlining courses for the junior high school, the fundamental principle of the whole reform movement must not be lost to view. This is, to take account of individual differences among pupils and to afford each pupil a preliminary survey of every field of knowledge he is expected to enter, by making all first courses exploratory courses. The prospectus recently issued by the Pennsylvania State Department of Public Instruction deals with this question in the following manner :

Every exploratory course must fulfill a twofold purpose : first, to help *some* pupils to explore their aptitude for the course, and second, to give *all* pupils an actual educational return. There is a similar dual nature in all the objectives of the junior high school by reason of the fact that there are two practically exclusive groups of pupils — first, those who will continue into senior high school and, secondly, those who will drop out during or at the end of the junior high school period. For the former each exploratory course becomes the basis of choice of electives, and for the latter each exploratory course must contain a content of genuine educational value. For the drop-outs, therefore, every general course must preserve life contacts. Each course must become a unit course of definite educational value in each year of its development. As the Commission on the Reorganization of Secondary Education states it, — “Each subject should be so organized that the first year of work will be of definite value to those who go no further; and this principle should be applied to the work of each year.” . . . Each junior high school general course of study, therefore, should establish itself as an identity, a self-contained unit, with definite continuity below and above and with a definite educational value independent of any course above.

That the majority of administrators who have had experience in planning general introductory courses in the junior high schools are favorably disposed towards such courses is evidenced by the replies recently returned to a questionnaire sent out by a Commission appointed by the National Council of Education. The Commission asked :

- (A) Should you consider a background of experience with high school subjects in their simpler aspects (general mathematics, general science, prevocational courses, junior business training, etc.) desirable for junior high school pupils before the initial choice of elective is permitted?
- (B) Following a period of exploration and preview of high school and equivalent subject matter, should you favor a brief period of testing the initial choice of electives, i.e., should there be provisional choice of electives?

Sixty-four replies to these questions were received, the individual judgments being recorded thus: ¹

	<i>Yes</i>	<i>No</i>	<i>Unanswered</i>
Question A	84.5%	14.0%	1.5%
Question B	73.5%	14.0%	12.5%

Among analysts of the curriculum, none, perhaps, ranks higher in America than Professor Franklin Bobbitt, of the University of Chicago. In his treatise, *The Curriculum*, Bobbitt declares:

There are two levels of educational experience, both of which are essential to the fullness of growth, efficiency of action, and completeness of character. Both are good, both are necessary; one precedes the other. One is experienced on the play-level; the other is experienced on the work-level. . . . Impelled only by curiosity and the play motive, following the leadings of interest, children and youth should, it appears, wander through every important field of human knowledge and human experience. . . . There is not to be too much *teaching*. What the children need and crave is *experience*. The school's main task is to supply opportunities that are so varied and attractive that . . . pupils will want to plunge in and enjoy the opportunities that are placed before them.

All of these preliminary studies or experiences, whether geographical, historical, literary, or scientific, like children's play in general, need to be rich in details, full of human color, infinitely varied, touched lightly and then left behind, taken up as prompted by interest not by logic, superficial, repetitious, and loosely organized. There is need of movement, irregularity, caprice, variety,

¹ Council of education.

and incessant interplay of all the factors that compose the human spirit. For such are the ways of childhood, — and even of youth and adulthood in the hours of their freedom.¹

With these ideas to guide the general trend of thought, let us turn specifically to a consideration of the content, arrangement, and methods involved in each of the several subjects of the curriculum.

¹ *Op. cit.*, pages 6, 11, 15.

CHAPTER EIGHT

PHYSICAL TRAINING AND HEALTH ¹

THE Committee on the Reorganization of Secondary Education has very properly assigned an important place to health instruction and physical training.² Society at large, seemingly, is willing to approve the decision. Certainly, no question is today receiving greater attention at the hands of organized reformers and social welfare workers than is this. The physician, the psychologist, the sociologist, the judge of the juvenile court, the wardens of penal institutions, the settlement worker, the religious missionary, and many others who deal with crime, poverty, and disease are in full accord respecting the influence of physical health on mental ability and moral character. Scientific studies recently made show conclusively that intelligence, social interest, and moral integrity depend to a large extent upon the health and physical vigor of the individual. Physical vigor leads to a pride in personal achievement; an interest in social affairs; and the aspiration for, and attainment of, moral courage, mental force, and integrity.

Bobbitt, in *The Curriculum*, expresses the idea thus:

It makes a large difference whether the level of vitality is maintained at fifty per cent of potential, or at one hundred per cent. The vocational demand for efficiency, when reduced to specifics, is a demand for forcefulness, for accuracy, for speed, for endurance, and for consistency or uniformity of work. And these are all fruits of a

¹ Throughout each of the succeeding chapters relating to particular subjects of study in the curriculum, the author has quoted extensively from school bulletins. He has done this deliberately, believing, first, that it is the more profitable to consider authoritative formulations and real working outlines; and second, that it would be presumptuous for him to speak dogmatically on all the several departments of work offered in a typical curriculum.

² "Cardinal Principles of Secondary Education," pages 3, 10, 11.

full vitality. . . . The devitalized individual is nervous, incoordinate, uncertain in his movements and inhibitions. The range of his mental life is narrowed. He does not see so many things at one time, and his failure to observe all of the things related to his work involves him in mistakes and accidents. . . . The physical condition of an individual or of a nation is intimately related to the moral and civic character. . . . For the man of very low vitality [possesses] little power to hold many things in mind at once that are needed for seeing complex social relations. As a consequence, he is morally incapacitated. He misses the road, largely because he cannot see where it lies. He falls back upon the guidance of instinct, passion, and other crude impulses.¹

Very naturally, therefore, society looks to the schools to produce the able-bodied, vigorous citizen; and the schools are beginning to accept society's implied command and to obey it.

PRESENT-DAY PROGRAMS IN PHYSICAL EDUCATION

Until recently — and to an unjustifiable degree the condition is true even today — whatever effort was made by the schools directly to bring about better physical development centered in formal gymnastics and still more formal courses in physiology. These efforts were often unsuccessful. Neither health knowledge, health ideals, health interest, nor health habits resulted from them. The objectives being sought today call for a different method and one that provides for the following:

1. Definite periods each day or week for physical education, including gymnasial instruction, folk dancing, free play, and games.
2. Physical directors for both boys and girls.
3. Boy and Girl Scout organizations.
4. Corrective physical exercises.
5. Interclass and interschool athletics.
6. School physicians, nurses, and dentists.

¹ *Op. cit.*, pages 173-175.

7. Rest rooms and first-aid appliances in all buildings.
8. Practical application of courses in general science, biology, and physiology to health and health problems.
9. Instruction in special fields correlated, when possible, with matters of health and physical training.
10. Auditorium exercises to impress lessons of health.
11. A series of physical and medical examinations for all pupils.
12. Records in diary form, kept by pupils, of their personal health habits and attainments.
13. Use of transparencies, bulletin boards, blackboards, and posters to inculcate ideals and to stimulate responses to health interests.
14. An annual school health and play festival whereby the lessons of the school may be indirectly carried to parents and patrons, and ideals of health and bodily development may, through the exhibition of prowess and vigor among pupils, be disseminated among members of society at large.

The following quotations from two courses of study offer many practical suggestions.

COURSE OF STUDY FOR JUNIOR HIGH SCHOOL
ROCHESTER, NEW YORK (1919)

Types of Physical Education Instruction and Time Requirements

(1) DAILY MORNING HEALTH INSPECTION

The home-room teachers will make a rapid daily health inspection of all the pupils at the beginning of the morning session, using as a basis for such inspection the following signs of health disorder :

SIGNS	DISORDER
<ol style="list-style-type: none"> 1. Sore throat 2. Earache 3. Ear discharge 4. Running nose 	<ol style="list-style-type: none"> 1. Disorders of nose, throat, and ear
<ol style="list-style-type: none"> 1. Sore eyes of any kind 2. Styes 3. Eyes, red or bloodshot 4. Dizziness 	<ol style="list-style-type: none"> 1. Eye disorders and defects

SIGNS		DISORDER
1. Flushed face	}	Contagious diseases
2. Chill		
3. Headache		
4. Eruptions		
5. Nausea		
6. Vomiting		
7. Running nose		
8. Congested eyes		
9. Cough		
1. Fits	}	Nervous disorders
2. Fainting		
1. Enlarged glands in neck	}	{ Nutritional and general disturbances
2. Puffiness of face and eyes		
3. Shortness of breath		
4. Unusual pain anywhere		

(2) RELAXATION DRILLS (*Eight minutes per day*)

All teachers will give at least four two-minute relaxation drills daily, one at the middle of each of the four class periods. The purpose of these drills is to ventilate rooms; to refresh pupils and teachers; to develop quick, accurate, and orderly response to command; and to promote good posture.

A series of graded exercises has been printed on cards for the seventh and eighth grades respectively, and a series of exercises suitable for ninth year students is available in stencil form. Teachers are requested to give to the grades only those exercises especially prepared for them.

(3) TALKS ON HYGIENE (*Twenty minutes per week*)

This instruction is to be given by the teachers in the science department and includes personal, school, and community hygiene. Particular emphasis is to be placed upon the formation of good health habits. In other words, teachers are requested to devise plans whereby they may know with some degree of certainty whether their instruction is made through the Student Organization of the junior high school for carrying on the work done in the elementary schools under the Rochester Health Club plan.

The teaching of the principles of personal hygiene, as these principles relate to the daily life of the students, most naturally and logically lies within the province of the instructors of physical education. Plans are now being formulated whereby this instruction



Photographs by courtesy of Board of Education, Detroit

Classes in the gymnasiums of the Hutchins Intermediate School, Detroit,
Michigan.

will be given in the near future by the department of physical education.

(4) SUPERVISED RECREATION (*Sixty minutes per week*)

The students may satisfy the recreational requirement by joining any one of the recreation clubs which meets the approval of the Director of Physical Education.

(5) GYMNASTIC DRILLS (*Sixty minutes per week*)

All students shall receive at least two half-hour periods of gymnastic drill instruction each week under the direction of trained physical education instructors. This instruction shall be given as follows:

First half-hour period:

Mass drill with, and without, hand apparatus . .	15 minutes
Games and athletics	15 minutes

Second half-hour period:

Military marching tactics	15 minutes
Gymnastic dancing	15 minutes

The following outline is taken from the Los Angeles, California, course of study, for 1916-1917.

PHYSICAL EDUCATION (*Girls*)

The purpose of this department is to determine the physical needs of each girl and provide such instructions, both theoretical and practical, as will result in her highest physical efficiency. This work continues throughout the Intermediate and High School course.

In its theoretical course, this department coöperates with the science and home economics departments in the study of hygienic living and the fundamental laws of health. It is designed to contribute valuable data to the formation of ideals of right living that will guide the student in the social and civic life of the community.

The practical course is progressive and is planned to train the girl physically in activities which will best give her self-control and self-direction and lead her to the full realization of health and happiness. Because of the immense importance of the transitional period from childhood into early adolescence, special care is exercised in selecting the activities of these grades.

Girls who, for any reason, cannot take the regular work are given special and corrective work according to their individual needs.

Practical Course

B7, A7:

Marching and tactics; free-hand exercises.

Rhythmic work; free play and short outdoor runs; gymnastic games.

B8, A8:

Progression from the work of 7th grade; marching and tactics; free-hand exercises, light apparatus.

Rhythmic work; free play and running; organized games.

B9:

Marching, running, and simple tactics; free-hand work; rhythmic work; gymnastic games.

A9:

Marching, running, and simple tactics; free-hand work; exercises with light apparatus; rhythmic work; gymnastic games.

PHYSICAL EDUCATION (*Boys*)

It is the aim of this department to provide such instruction and facilities as are necessary to enable all the pupils in the City Intermediate and High Schools to engage in those physical activities that are known to be of value in developing organic vigor, neuro-muscular strength and skill, coördination, good posture, and certain desirable traits of character, such as courage, confidence, sound judgment, and will power; the physical possibilities, limitations, and control of the human body.

A special effort is made to develop the habit of outdoor exercise, and to create and maintain an active interest in those athletic games that are sources of organic vigor, of vitality, of physical and mental efficiency.

Particular care is exercised in selecting and adapting the activities to the various periods of adolescent life.

Practical Course

The practical course of two periods per week is required by all students through the Intermediate and High Schools. Any student, who, for any physical reason, is unable to take the regular work, is given corrective work suited to his individual needs.

B7, A7:

Marching and tactics; free-hand exercises; light apparatus (wands); free play and short outdoor runs; organized games.

B8, A8:

Marching and tactics; free-hand exercise; light apparatus (wands and dumb-bells); free play and running; organized games.

B9:

Floor maneuvers; military marching; free-arm calisthenics; dumb-bells; wands; elementary apparatus work, two pieces; indoor and outdoor gymnastic games; free play and short outdoor runs.

A9:

Military marching; free-arm calisthenics and floor exercises; dumb-bells; wands; elementary apparatus work, two pieces; indoor and outdoor gymnastic games; free play; short outdoor runs.

INSTRUCTION REGARDING SEX

A special subject of health education is the matter of instruction in regard to sex. There are only three ways of dealing with this delicate subject: the first is to deny it a place in the school at all; the second is to deal with it directly through courses specifically planned and administered; and the third is the incidental, natural treatment of the subject as occasion arises in connection with the regular work of the school. Educational theory today supports either a combination of the second and third of these plans, or else, where circumstances make it more desirable, the last one only.

The United States Public Health Service, as well as many of the State Health Departments, is doing remarkably effective work in stimulating schools and parents to action and in spreading valuable information. The following excerpts from the United States Public Health Service Bulletin, *The Problem of Sex Education in Schools*, are helpful.

WHAT ALL TEACHERS MAY DO

Certainly not all teachers are fitted to engage in direct sex teaching. This task is for a few teachers only and in a few subjects only. These few teachers must meet many requirements. They must have an accurate and scientific knowledge of the facts to be imparted and a thorough understanding of the pedagogy or method of treatment. There are other personal requirements also. Such teachers

must have a wholesome attitude towards sex. They must not be soured or pessimistic through personal misfortunes, nor can they be trusted if they have their main interest in the abnormal, pathological aspects of sex, or exhibit a conspicuous emotional excitement in discussing it. A teacher with a flippant attitude or with doubtful personal probity is impossible. Some people have become very much absorbed in the newer psychopathology of sex life and without adequate background in theory or experience entertain quite radical views as to the psychological dangers of repressing sex feelings. Such persons would not make proper teachers. An ever-present danger is that teachers with missionary zeal will introduce the subject in their classes without proper textbooks or without getting counsel from experts in the field. Authorization from the school principal should be obtained.

On the other hand, some teachers are successfully giving instruction in sex, and there are many others who have the latent ability to do this highly important work, but are unable to do so because at present they do not know how. What they need is instruction in subject matter and in methods.

There are teachers who do not desire to teach sex hygiene in the classroom, but often feel the impulse to give help to individual, needy pupils with whom they come into close contact. This is an opportunity not to be avoided. A teacher in such a situation should first get in touch with the parents. If there is no help in this direction, the teacher may be able either, himself, to help the pupil or else to put him in touch with the proper adviser. School nurses and physicians, if they are fitted by temperament for consultation, may often be called upon. Rarely, however, should a teacher or an adviser seek to give information to one of the opposite sex.

Although the most important facts concerning the hygiene of sex can be given in a single talk or interview with a boy or girl at the age of thirteen or fourteen, the subject as a whole is much broader. It includes the whole process of reproduction and nurture of children, the meaning of marriage, prostitution, venereal diseases, illegitimacy, and the hygiene of sound recreation. These cannot be taught at one time or place. They must be given at appropriate periods from early childhood to mature manhood and womanhood. And to be thorough, this education must be accomplished through the coöperation of the homes, the churches, the schools, the press, clubs, and societies.

SEX INSTRUCTION IN THE CURRICULUM

In planning to include sex education in the school curriculum, it should be realized that sex in life is not isolated as an experience or as a group of facts. It winds through many kinds of experiences at different ages and is a part of many kinds of facts. Few branches of knowledge or feeling do not touch sex problems. Few subjects can be taught properly with the sex aspects left out. An examination of the curriculum shows that society has had an official censor deleting sex from all classroom work under the orders of a now outworn prudery. We find sex left out of all subjects, no matter how much the omission weakens or even falsifies them. In nature study, we begin with the baby animal and end with the death, giving no account of the renewal process; in anatomy, while three bodily cavities are named, the organs in only two are fully enumerated; in contagious diseases, venereal diseases are omitted; in the selections from literature, the sex motives are suppressed; in history and civics, their significance is ignored.

To introduce sex instruction, then, is not to add subjects but merely to lift the taboo from certain kinds of knowledge which form organic parts of courses in nature study, physical education, biology, physiology, and community civics or sociology. Sex knowledge is by this means given its normal place and can often be conveyed to pupils in their classes without the slightest consciousness on their part that what they are receiving is sex information. It can, moreover, be put into courses at the times in the pupil's life when the knowledge is most needed, anticipating temptation by the instruction necessary for protection.

There is still much experimenting to be done in particular courses. Enough has been accomplished by experts in biology, physiology, hygiene, and household arts during the last few years, however, to furnish teachers with precedents, methods, and material.

Fuller information respecting the devices for teaching sex education can be obtained by addressing the United States Health Service, Washington, D.C. Among other agencies for accomplishing the task is the motion picture. The government health service can furnish valuable information concerning the films of this kind that are available and suit-

able. The following selected list of readings will also prove helpful to the sincere inquirer :

BIGELOW, M. A. *Sex Education*. The Macmillan Company.

FISHER, IRVING. *How to Live*. Funk & Wagnalls.

GALLOWAY, T. W. *The Biology of Sex*. D. C. Heath & Co.

HALL, W. S. *Life's Beginnings*. Association Press.

——— *Life Problems*. American Medical Association.

SMITH, NELLIE M. *The Three Gifts of Life*. Dodd, Mead & Co.

CHAPTER NINE

ENGLISH

WHAT are the true aims of English teaching in the schools, particularly in the junior high school? Concisely put, they are :

- (1) To develop among pupils the power of clear, forceful, facile, and pleasing expression of thought, in both oral and written form.
- (2) To stimulate the taste for good literature and to give skill fairly to interpret it when read.
- (3) To give a knowledge of the worthy masterpieces of literature, both ancient and recent, and the power to discriminate wisely among the mass of current writings of our own day.
- (4) To inculcate ideals of life sanctioned by the best present-day standards.

A more detailed statement is given in a report of the Committee on the Reorganization of Secondary Education as follows :

The particular results to be sought in the teaching of English may be somewhat specifically indicated as follows :

- I. In general, the immediate aim of secondary English is twofold :
 - (a) To give the pupil command of the art of expression in speech and in writing.
 - (b) To teach him to read thoughtfully and with appreciation, to form in him a taste for good reading, and to teach him how to find books that are worth while.

These two aims are fundamental ; they must be kept in mind in planning the whole course and applied in the teaching of every term.

II. Expression in speech includes :

- (a) Ability to answer clearly, briefly, and exactly a question on which one has the necessary information.

- (b) Ability to collect and organize material for oral discourse.
- (c) Ability to present with dignity and effectiveness to a class, club, or other group material already organized.
- (d) Ability to join in a conversation or an informal discussion, contributing one's share of information or opinion, without wandering from the point and without discourtesy to others.
- (e) Ability (for those who have or hope to develop qualities of leadership) to address an audience or conduct a public meeting, after suitable preparation and practice, with proper dignity and formality, but without stiffness or embarrassment.
- (f) Ability to read aloud in such a way as to convey to the hearers the writer's thought and spirit and to interest them in the matter presented.

III. Expression in writing includes : • •

- (a) Ability to write a courteous letter according to the forms in general use, and of the degree of formality or informality appropriate to the occasion.
- (b) Ability to compose on the first draft a clear and readable paragraph or series of paragraphs on familiar subject matter, with due observance of unity and order and with some specific detail.
- (c) Ability to analyze and present in outline form the gist of a lecture or piece of literature, and to write an expansion of such an outline.
- (d) Ability, with due time for study and preparation, to plan and work out a clear, well-ordered, and interesting report of some length upon one's special interests — literary, scientific, commercial, or what not.
- (e) Ability (for those who have literary tastes or ambitions) to write a short story or other bit of imaginative composition with some vigor and personality of style and in proper form to be submitted for publication, and to arrange suitable stories in form for dramatic presentation.

IV. Knowledge of books and power to read them thoughtfully and with appreciation includes :

- (a) Ability to find pleasure in reading books by good authors, both standard and contemporary, with an increasing knowledge of such books and increasing ability to distinguish what is really good from what is trivial and weak.
- (b) Knowledge of a few of the greatest authors, their lives, their chief works, and the reasons for their importance in their own age and in ours.
- (c) Understanding of the leading features in structure and style of the main literary types, such as novels, dramas, essays, lyric poems.
- (d) Skill in the following three methods of reading, and knowledge of when to use each :
 - (1) Cursory reading, to cover a great deal of ground, getting quickly at essentials.
 - (2) Careful reading, to master the book, with exact understanding of its meaning and implications.
 - (3) Consultation, to trace quickly and accurately a particular fact by means of indexes, guides, and reference books.
- (e) The habit of weighing, line by line, passages of especial significance, while other parts of the book may be read but once.
- (f) The power to enter imaginatively into the thought of an author, interpreting his meaning in the light of one's own experience, and to show, perhaps by selecting passages and reading them aloud, that the book is a source of intellectual enjoyment.

V. The kinds of skill enumerated above are taught for three fundamental reasons :

- (a) Cultural. To open to the student new and higher forms of pleasure.
- (b) Vocational. To fit the student for the highest success in his chosen calling.
- (c) Social and ethical. To present to the student noble ideals, aid in the formation of his character, and make him more efficient and actively interested in his relations with and his service to others in the community and in the nation.¹

¹ Bulletin No. 41, pages 12 *et seq.*, 1914.

CURRENT TEACHING OF ENGLISH

In connection with the Grand Rapids School Survey,¹ the present writer had occasion to express his opinion in regard to the current teaching of English in the junior high school, an opinion that he has seen little reason to change. The paragraphs that follow, therefore, are practically a restatement of the ideas expressed in the report of the Survey.

Most leaders of thought dealing with the teaching of the vernacular language and literature agree that detailed and exhaustive courses in formal English grammar — particularly during the early years of school life — are a waste of much precious time for teachers and pupils alike. Such courses are discouraging and distasteful requirements for many types of youths, and to a large degree they fail in effecting the ends for which they are designed and presented. It is doubtful if formal grammar serves as the best means for developing the ideals that are sought in the work of English, particularly when taught as an isolated subject considerably apart from its concrete connection with daily human expression and current readings. As presented by many teachers, it is treated as an end in itself, not as a means to a more noteworthy end. The true way to acquire habits of correct oral and written speech and the power to analyze the thought of literary selections is by speaking, writing, and analyzing repeatedly, under the stress of current needs or real motives, not in a formal, abstract manner under circumstances that are artificial and forced. In like manner, the way to develop a refined taste and a true appreciation of literature is by the repeated study of works of literary merit, following always, however, the universally accepted pedagogical law of proceeding slowly and gradually from the child's immediate

¹ *Grand Rapids School Survey*, pages 23 et seq.

interests to the interests of more mature life, and providing constantly for variety of form and subject matter in the studies that are presented.

Although in the junior high school work these ideals and maxims are acknowledged in theory, they are not always put into operation in practices so fully as seems desirable. Throughout the seventh and eighth grades, formal English grammar is frequently prescribed for every pupil, except perchance for the few whose linguistic attainments have been sufficiently satisfactory to permit them to be enrolled in courses in Latin. Even then, however, fifty per cent of the time allotment is expected to be used for work in English grammar.

Much of the teaching of grammar in our schools is good, and pupil responses not infrequently are highly creditable. Nevertheless, for many students, it is evident that the subject is of little interest and of doubtful profit. Much of the reading in our schools is truly a study of literature for its content value, but in as many instances the aim seems to be to secure form and fluency only — and even this is not always well done. Moreover, there is little freedom accorded the teacher in the selection of the material to be studied. A great deal of the material contained in textbooks is unattractive to many students. Some of America's magazines of today, a few of the worth-while contemporary books of adventure, fiction, biography, history, and description, and some of the excellently arranged supplementary school readers certainly ought to be allowed a place in any English course.

Educational theorists have for some time asserted that six years devoted to the formal aspects of reading, writing, and spelling are sufficient to give to all normal children the fundamentals of those arts, and that whatever additional training is provided should be secured incidentally in connection with the teaching of content studies. Why any junior high

school, in view of these established theories, should continue to adhere strictly to traditional practices is not clear. With much stress upon the formal aspect of English, there surely is a lack of time available for the content side. Moreover, the question persistently arises: Are ten periods (or even seven or eight periods) a week devoted to English in all its phases the best possible distribution of time for *all* types of mind, or even for the majority of pupils in the junior high school? May not the policy of allowing certain pupils of keen language interests to substitute Latin, French, Spanish, or German for formal English grammar be a wise policy to adopt for other types of pupils; that is, for those who do not profit greatly by any formal language study? May not, in concrete, a course in business English, shop English, conversational English, magazine English, or one embodying elements from all such fields, be fittingly employed more freely than at present?

Undeniably, his own language and literature are preeminently important for every one of us. Hence some type of course in English should be pursued by every pupil in every grade in the junior high school. But it is seriously questioned whether much of what is offered or prescribed in English in most of the junior high schools of the country is well chosen. What a large number of pupils will find most valuable is a course in which literary selections are largely taken from current writings dealing with science, nature, industry, travel, biography, history, current events, and social questions, and from current fiction. Such a course would base the expressional work, both oral and written, upon the impressions gained through the study of the selections and through the everyday experiences of life. True development in language power comes from having something to say and a motive for saying it forcefully, fittingly, and understandingly.

METHODS SUGGESTED

Perhaps no more suggestive article relating to the teaching of English in the Junior High School has lately appeared than the one by Professor Walter Barnes, in the *School Review* for September, 1919. In it, Barnes presents ten statements accompanied by fifteen suggestions bearing upon the subject of English. The suggestions, somewhat paraphrased and condensed, follow :

(1) The individual reading method should now supplant the class method. Instead of all pupils reading the same poem or essay, each child should be given an opportunity to choose themes and forms and types of literature to suit his taste. The recitation hour should be devoted to discussions of books read, interchange of opinion, discovery of canons of taste and of literary art, correction of false impressions, and occasional reading aloud of passages that are worth reading aloud.

(2) In composition work, each pupil should select his own themes and forms . . . the teacher seeing to it that no form of expression that is absolutely indispensable to the average citizen in a democracy is utterly ignored.

(3) In literature and composition, the pupil should be given opportunities of testing himself out, of tacking and sailing hither and yon. He should be encouraged to range widely, to read this author for a time, then forsake him ; he may be expected to hate the things he formerly loved and to love the things he formerly hated. He should not be required to "study" one author for a semester or spend two months in intensive reading of one book ; he should not be asked to tell stories or write explanations for a long stretch of time.

(4) Projects of diverse kinds should now be features of the English work. Library societies may be organized and school papers published. The socialized recitation is the natural means of conducting both literature and language work.

(5) A goodly portion of the reading in the junior high school should be biography and history and legend.

(6) The teacher should provide an audience for all expression. . . . Written work should be read aloud to the class, read by a committee, passed around among members of the class, displayed

on the wall, printed in the school paper, or in some other way given publicity.

(7) The teacher should use this period to enlarge and enrich the pupil's stock of words.

(8) In their reading, the children of the junior high school age should be encouraged to run at large over the enchanted region of Munchausen, Barrie, Macdonald, Ingelow, Craik, Baum, and Stockton, and deal with such stories as *Tanglewood Tales*, *The Wonder Book*, *The Ancient Mariner*, *Tales from Shakespeare*, and similar writings.

(9) In their theme work, the children should be allowed to give expression to the romantic and fanciful ideas that well up within them. Trips to the moon, fanciful autobiographies, fairy tales, dream stories, make-believe travels, all are natural to this period of childhood.

(10) Close analysis of style and worship of standards of elegance, purity and prettiness of diction are out of place. . . . It is content that counts; the boys want reading with substance.

(11) The natural language of children on this plane of their development is colloquial, idiomatic, free and easy, rough and ready. Ideals of correctness and propriety should be advanced with prudence, tact, and common sense.

(12) Functional grammar can now be justified . . . though heavy courses in the traditional technical grammar are entirely out of place here.

(13) Some of the reading should be from current magazines.

(14) Here particularly children must be allowed to speak and write of their native interests and experiences.

(15) The utmost care must be taken in criticizing language and composition work. . . . The good teacher will make the atmosphere of the English class wholesome and inspiring and will teach through success, not failure.¹

A list of books suitable for Junior High School students is given in Appendix B, page 426, and a short list of stories of adventure will be found in Appendix C (page 435).

¹ "Suggestions for the English Course in the Junior High School," *School Review*, Vol. 27, No. 7, pages 523 et seq.

COURSES OF STUDY IN ENGLISH

The West Virginia Course of Study

In the Course of Study for the Junior and Senior High Schools of West Virginia, issued in 1921, many helpful ideas respecting the teaching of English are to be found. Certain excerpts and adaptations from that Report follow :

English includes two groups of subjects: the Reading-Literature group and the Language-Composition group. These are so different in content and in the mental activities involved that they should be kept almost separate and, if possible, taught by different teachers. The first group is related to the attainment of culture, of æsthetic pleasure, of a rich, round character; it should prepare one for profitable use of his leisure. The second group is related to the achievement of efficiency, to utility; it should prepare for practical success in life. The two should not be taught by the same methods nor aim at the same results, nor should the content of either one be carried over to the other. Subjects drawn from literature are the duller and most uninteresting themes for speaking and writing; attempting to enlarge pupils' vocabulary by words met in literature interferes with satisfactory methods of teaching literature and produces very meager practical results. Conversely, composition should not be used for the purpose of increasing appreciation of literature or for any other cultural purpose; it should be used for the directly practical purposes of teaching pupils to organize and express thoughts.

Grammar, Rhetoric, Spelling, the Lives of Authors, and the History of Literature should be considered not as valuable in and of themselves but valuable in proportion as they assist in the realization of the two major aims of the English course: to give power, skill, taste, and enjoyment in reading, and to give fluency, effectiveness, force, and correctness in speaking and writing.

One of the foundation principles of the work in Literature is that the student should read much, a great deal more than is provided in the average high school at present. An objection urged often — and justly — against the traditional work in Literature in the high school is that there is too much close and detailed study of masterpieces, too much verbal and linguistic analysis, too much formal and critical study. Often a class spends two or three weeks on Milton's *L'Allegro* or Longfellow's *Miles Standish*, analyzing and dissecting

until the students are so bored they never want to hear of Milton or Longfellow again.

Throughout this course necessity for rapid reading is implied. The course is laid down in the belief that the emotion and the thought can be extracted in a half or a fourth of the time that has usually been spent on a selection. But to do this requires emphasis on the essentials and elimination of the non-essentials. It requires careful planning on the teacher's part and joy and animation in the class discussion. It requires much outside reading at the rate of one book a month. Above all it requires a new point of view in the teacher: the belief that Literature exists to give intelligent pleasure, to arouse strong, pure emotions, to lead to knowledge and wisdom; not to communicate facts, not to discipline the mind, not to satisfy traditional and conventional notions about "knowing the classics through and through." It has been amply demonstrated again and again that rapid reading is most likely to be good reading. The toilsome pace to which we hold children down frustrates the essential purpose of reading.

Throughout the junior and senior high schools the individual reading method should be employed for at least one fourth the time that is devoted to the work in Literature. In this method each child reads a book that he selects for himself from a list approved by the teacher. (The teacher should be so liberal in her tastes that she will approve any wholesome book not on the list.) The child should be trained to read rapidly, to determine almost as he starts the book what is the nature and the theme of the book, to analyze the characters, to anticipate the events in the plot and to perceive the bearing of each incident on the course of the story — in short, to handle the book deftly, skillfully, getting that enjoyment out of it that an intelligent mature reader gets from books. The recitation periods should be devoted to informal oral reports and discussions, each pupil telling what book he is reading or has lately read, how he enjoyed it and why, what are the chief sources of interest, etc., while the teacher should correct false impressions, point out that which the pupil may have overlooked, assist in interpreting and understanding. Reading done in this way is invaluable in preparing children for the kind of reading they will engage in after they leave school.

By means of plentiful reading of newspapers and magazines in class and of outside reading of current fiction, essays, and poetry, the students are made acquainted with the best of modern writing.

It is not claimed that all or most of this is great Literature; that has been provided, too, in full measure in other details of the course. It is claimed merely that most men and women who read at all read modern books and periodicals, that there is a natural and sound reason for this, and that the high school course in English should try to give the students power of discrimination between the best and the poorest, should try to set up standards of judgment, should train in taste.

It may be truly said that any high school course in Literature that does not create a taste for reading and train to reading habits in its students has failed in one of its chief functions. If a high school graduate does not like to read, it is a reflection on the high school.

The Report, too, makes the following pertinent observations respecting the handling of books and instruction therein :

Many graduates of the junior high school are weak in one very important respect : they are unable to handle books effectively and economically. Instruction and training in the use of books should be given in connection with every subject, but upon the English teacher falls the main responsibility. For this reason two recitation periods out of the twenty apportioned to English are used specifically for the definite, systematic teaching and training in the use of books. Among the topics to be emphasized are : opening a new book, taking care of books, the preface and introduction, table of contents, chapter divisions, sub-heads, figures, letters, etc., inserted as guides to the thought, cross-references, footnotes, pictures, diagrams, maps, supplements, bibliographies, indexes; scanning a book to get a general idea of its contents and nature. Practice is to be given in the rapid reading of chapters and sections and the summarizing of the contents, and in finding topic sentences in paragraphs, etc.

This work includes also the use of dictionaries, encyclopedias, and reference books and practice in rapidity and accuracy in looking up points. Newspapers and magazines should be analyzed, to determine the nature and material, the important features, etc.

Taking up more specifically the question of composition and other aspects of the expressional work, the Report says :

The Composition work of this course is based on the principle that the Oral and Written Composition work in school should prepare the students for the kind of speaking and writing they will be called upon to do in life . . . it is not at all the function of the high school course in Composition to train authors, orators, journalists. It is the primary function of the high school course in Composition to train in organizing thought and expressing ideas by those means and in those forms that the average man and woman use. . . . The speaking of the average man and woman is conversation, stories, exposition, and argument. The high school course in Composition, therefore, should provide thorough training in these forms. The writing of formal descriptions, book reviews, type short-stories . . . should be almost eliminated.

. . . At least half the time available for Composition work should be devoted to training in speech.

Training in speech includes definite, consistent training in what is called Oral Composition. This is the telling of stories, the composing and speaking of expositions, the delivering of arguments, the giving of informal book reviews. The securing and organizing of material should be carried on for Oral Composition in much the same manner as it is for Written Composition; but the composition should be spoken instead of written. Criticism of Oral Compositions should emphasize not so much the language used and the manner of delivery, as the arranging of material, the qualities of unity, coherence, emphasis, etc.

The qualities most desirable in the writing and speech of high school students are: clearness, unity, and coherence of thought and arrangement; and force, expressiveness, picturesqueness, naturalness, and ease of language.

The compositions of many high school students are poorly constructed and couched in stilted, laborious "literary" English. Standards of elegance and propriety have been lifted up; ease, lightness, and the use of colloquial, idiomatic language have been frowned down. In consequence the students have not expressed themselves with animation and spontaneity, with humor and in the vernacular. They have not "let themselves go"; they have repressed the tendency to reveal their thoughts by free, forceful speech.

To attain clearness, unity, and coherence of thought and arrangement the student must be trained in organizing his thoughts; to sift

his material, to seize upon essentials and subordinate non-essentials, to arrange the material in the logical and effective order,² to paragraph thoughtfully, to mark the path of thought by guide-words. This means training in making outlines, in thinking entirely through a subject, in going to the heart of the matter and going to the bottom of it. The teacher should spend much more time than is usually spent in guiding the students in "laying out" their subjects, in constructing simple outlines, in making the subjects clear to themselves before trying to make it clear to others. This is essentially training in thought.

To attain the desirable qualities of language the student must be in the proper attitude toward his work. The subject must be one in which he is interested, one over which he has some mastery so that he can feel at ease with it. Furthermore, he must not be hampered by the fear of severe criticism to follow. He must be encouraged to express himself freely, naturally, picturesquely — with exaggeration sometimes and with humor sometimes, with effective slang and colloquialism. Finally, he should have, whenever possible, a compelling motive for composition.

Continuing the discussion with especial reference to spelling and grammar, the Report says:

The English course as here outlined does not suggest any specific periods for spelling. That does not mean, however, that spelling is not to be taught. . . . The best way to teach spelling is through the written work of the students. The teacher and student should keep a list of words misspelled in the writing, and at least once a month a period should be given up to spelling drills on the common and difficult words misspelled during the month.

Grammar can be best taught in connection with Literature and Composition work. Often a student fails to get the meaning from a sentence he is reading because he does not perceive the grammatical construction of certain words; this is the time to teach that grammatical construction. Often a student makes a grammatical blunder in his speech or writing; this is the time to teach that grammatical fact. . . . This is the best kind of grammar teaching, since it comes at the moment when the student sees the value and the application of the grammatical fact or principle.

It is desirable, however, to take one period every two weeks for definite, systematic instruction in English grammar.

It may be set down as a general principle that no detail of grammar should be taught that does not have direct relation to the students' reading, speaking, and writing. Grammar should not be taught for mental discipline. Grammar should not be taught to prepare for foreign language. Grammar should not be taught as a science. Grammar should be taught only as a practical aid in the art of language expression.

Finally, the Report concludes its discussion of English with the following general admonitions respecting administration :

There are, of course, essential differences in the nature and the interests of junior high and senior high school students ; naturally, therefore, the English work in the two sections of the high school should be different. In the junior high school, the course in English, both in Literature and in Composition and Language, should be extensive — that is, should offer the children a wide variety in authors and types and styles of reading material, and no less wide a variety in the themes, types, and kinds of composition work. In the senior high school the English course should be comparatively intensive ; the children may be expected to confine themselves a little more straitly, to study one author or type for a longer period and somewhat more closely. The junior high school should give the pupils opportunities to try themselves out in every way, the senior high school should offer opportunities to specialize more in their favorite kinds of work. But these differences should not be magnified ; the course in both sections of the school should be flexible and should give every child the chance to discover his talents and develop them, to work extensively and intensively.

The present writer finds himself in accord with the ideas voiced in the quotations from this Report.

The Rochester Course of Study in English

It is a fairly easy task to criticize existing practices and, also, to set up modified goals of attainment. It is a more difficult matter to organize the actual school practices and to get the aims realized. It is worth while to inquire how the

work is being undertaken. The following excerpts from the Course of Study for Junior High Schools, Rochester, New York, 1919, show how one city is meeting the problem :

Aim of the Work in Composition

The aim of the junior high school course of study in Composition is to provide a program that will train the students to talk distinctly and in an interesting, convincing manner : that will develop a sentence sense which will enable them to express themselves clearly and definitely, whether in speech or in writing ; and that will give them the ability to write pleasing, concise, effective English unmarred by misspelled words or the common ungrammatical expressions.

Correct Speech

While the reason for the correct form will play an important part in helping certain types of students to speak and to write correctly and will prove a valuable aid when they are in doubt about a particular expression, nothing but the most careful drill in the use of the forms that we attempt to teach will result in forming the correct habits of speaking and of writing which we seek to inculcate.

Teaching a given lesson merely points the way for the correct expression of particular ideas. Careful and constant drill is necessary to fix the correct form in the mind of the student. By means of a sufficient number of exercises, the student must have ample practice in the matter of correct choice between two or more forms of expression to give him confidence in his ability to choose and to use the correct form. In our work in English, it is knowledge reduced to practice that counts. . . .

That form of drill which to the greatest degree enlists the interest of the child will produce the most satisfactory results. . . . Encourage students to invent games in accordance with the needs of the particular class and to add their own suggestions to games outlined by the teacher.

Begin the correct speech campaign as soon as the students enter the junior high school, by correcting and tabulating the common errors of the members of each class. In observing and recording the errors of his fellow students, each member of the class is developing a sensitiveness to correct speech that is absolutely necessary, if any real progress is to be made. The topics under "Correct Speech" outlined for each grade have been arranged with reference to the

grammar taught during the term. The outline merely indicates the points that have been assigned for particular emphasis, provided the students need correction along the lines suggested. The kind and amount of work done in each class must always be determined by the particular needs of the class.

Oral English

At least one half of the work should be oral in both the seventh and eighth grades. It should be remembered, however, that it is not mere talking but talking to some purpose that counts. There should be a definite relation between the oral and the written work. Good, clear enunciation and correct pronunciation are prime essentials. We should not fail to continue emphasis on the importance of pronouncing all the syllables in each word and sounding final consonants, even though the task is difficult and discouraging. Strive to make the students realize that, by mastering correct English, they are not only making definite progress toward success in any line of work that they may elect, but that the right word in the right place has a distinct value in all their school work.

Dictation

Dictation exercises, if rightly used, will prove a valuable aid in fixing habits of using the technicalities of written language correctly. This work also affords a means of testing the power of the students to apply in written work what they are supposed to have learned about capitals, punctuation, abbreviations, etc.

In this type of work it is possible for the students to give their entire attention to matters of form, as the content is dictated by the teacher. Teachers should, of course, keep in mind the fact that dictation exercises are largely mechanical and are given for the purpose of testing or fixing facts already taught. They are not teaching exercises.

Grammar

The junior high school course recognizes the value of systematized knowledge obtained through the study of formal grammar. This knowledge, however, is not to be counted of primary importance in itself and, therefore, must be considered in relation to the present language needs of students. . . . Sets of sentences are not to be devised merely for the sake of exemplifying principles of grammar,

but these principles are to be utilized wherever they add essentially in securing clearness or correctness of expression, either oral or written.¹

The following constitute a partial list of subjects for oral or written work for all grades of the junior high school in Rochester :

I. IMAGINATIVE STORIES

In taking up this type of work, the teacher should be very careful not to permit the students to select subjects that will tend to lead them beyond the realm of their own experiences and thus make their stories unreal rather than sincere expressions of their own ideas.

A Runaway
The Rescue
The Lost Purse (*Substitute any lost article*)
A Girl's Heroism
Helped Out of a Difficulty
A Bicycle Accident

A Joke on Me
A Picnic Party
A Thanksgiving Story
The Warning Bell
Story of an Accident
Story of an Effort to Enter My Home without a Key

II. DESCRIPTIONS OR EXPOSITIONS

How to Make a Loaf of Bread
(*Specify other things students can make*)
How to Play — (*Specify game*)
A Baseball Game
Why the Housefly is Dangerous
Public Buildings (*Specify a particular building*)
Visit to a Park
A Boat Ride
A Day in the Country
In the Woods
How I Tried to be Helpful
How I Earned My First Money
My Favorite Pastime
A Room in My Home

A Picture That I Admire
Character Sketches (*Based either on characters in literature or characters known to the writer*)
Description of Garments Made in Sewing Class
Description of Utensils Used in Cooking
A Science Excursion
My First Day at Junior High School
What I Saw from a Car Window
Lincoln Branch Library
Actions of Some Familiar Animal
How to Can (*Specify fruit or vegetable*)

¹ Rochester, N. Y., Course of Study for Junior High Schools, 1919, pages 42 *et seq.*

III. SCHOOL ACTIVITIES

Club Activities (<i>Students to talk or write on the particular activities in the club of which they are members</i>)	Possibilities of Our Gymnasium
Reports of Class Meetings	Value of Physical Exercise
Playground Events	An Assembly
Thrift and the School Banking System	Duties of School Officers (<i>Specify a particular officer</i>)
What the School Library Means to Me	Safety First Activities
Our Home-Room Section	Athletic Events (<i>Specify the event of particular interest at the time</i>)
Activities of the School Community Organization	Choosing a Course of Study
	Suggestions for the Improvement of Our School

IV. TIMELY TOPICS

The Red Cross	Camp Fire Girls
Income Tax	Safety First
Boy Scouts and Their Camp	

V. ARGUMENTS

Advantages of Motor Delivery to Business Houses	Summer is the Best Season of the Year
Snowballing on a Public Highway is Dangerous	A Man of Learning Can Do More for His Country than a Man of Wealth
A Disloyal Student Will Not Make a Good Citizen	Arbitration is Better than Litigation
Why I Think the Academic Course is Better than the Commercial	Geometry is More Interesting than Algebra
Girls are More Helpful in the Home than Boys	Why All Students Should Have Some Hand Work

In teaching literature, the following paragraphs and outlines taken from published Courses of Study are helpful :

I. Extensive Rather than Intensive Work for Seventh and Eighth Grades.

The present plan for the work in literature for the seventh and eighth grades is based on the idea that pupils in these grades should read a number of stories and get the one or two big ideas that the author intended to convey. Expressing it in the words of Professor Thomas H. Briggs of Columbia University, "We are now standing

for one thought out of fifty masterpieces rather than fifty thoughts out of one masterpiece." Under the former plan, the children were quite apt to miss the one big idea in spending too much time over details. Under the present plan, these details are provided for in other phases of the work in English, or are left for later years of the course, when the students have attained greater maturity and have accumulated a larger background for the more intensive study of literature.

II. Literature Selected Must Appeal to the Child.

Children are bound to read. It is therefore our duty to ascertain and to consider their present interest, thus helping them to do better what they are bound to do, for in this way we may be able to show them other and greater possibilities. The child is sure to be most interested in that selection of literature in which he sees the largest relation to himself or to which he is most able to relate himself. The pupil's desire for more literature by the same author or of the same type is good evidence that this particular kind of literature is producing a satisfactory emotional response and that he is, at least, getting something of what the author intended him to get.

III. The Short Story.

The short story lends itself well to supplementary reading, as it appeals to the child who likes to hear stories, to read stories, and to tell stories. For the literature work in junior high school, the stories must be most carefully selected because the students are passing through that period of adolescence when everything read leaves its mark. If the stories stimulate desirable enthusiasms, reinforce good motives, and give a delightful first-hand acquaintance with the writings of authors of recognized merit, they will play an important part in shaping the student's reading throughout future years. Eager and appreciative reading of stories of this type will result in the formation of the invaluable habit of turning to good books for companionship in leisure hours. Short stories that are direct, forceful, and appealing also furnish an excellent foundation for the more intensive study of literature later on.

IV. Silent Reading.

Oral reading, important as it may be, will never play as large a part in the life of the ordinary individual as silent reading. The

future information and consequent effectiveness of our students will depend largely upon what and how they read. It is, therefore, the duty of the school not only to create a taste for good reading, but also to train the students so that they will get the largest possible results from their silent reading when no one is present to offer suggestion or to aid in the interpretation. Under this plan, far less emphasis is placed on word drill, pronunciation exercises, and oral expression as a part of the reading, because this work is left to be taken up at some other time according to instructions given in the regular outline in English. In their silent reading, students should be trained to depend more largely upon the context for the meaning of words and should be taught to interpret the dictionary definition in the light of the sentence or paragraph in which the unfamiliar word is found.

V. Discussion of the Story.

Through discussion following the silent reading, the teacher has an opportunity to stimulate the imaginative and emotional faculties of the students and thus help them really to live with the characters in the story so that they think and feel with them. In this way, students may also be led to sense the author's point of view, to appreciate his descriptions, to realize something of what it means to be able to use just the right words to express thought. They should be encouraged to select favorite passages, to give general impressions, to discuss the different characters, and to tell personal experiences like those related in the story. If they are to do this, they must enjoy the story, not merely tolerate it.

VI. Suggestive Questions Help to Stimulate the Discussion of a Story.

1. Questions of the teacher.

What part of the story interested you most? Why?

Have you found any character that you would like to have for your friend? Why?

What characters do you dislike? Why?

Did you find any surprises in the story?

Did the story end as you expected? If not, why?

How does this story compare with the one we read last?

Is there anything in this story that reminds you of any other story you have read or of any experience you have ever had?

2. Questions of the students.

One of the most helpful ways of getting students to take a vital part in the discussion of the story is to allow them to question each other.¹

RECOMMENDATIONS

That the practices enumerated in the foregoing pages are in general harmony with the best formulated thought of the day may perhaps be substantiated by comparing them with the recommendations made to the North Central Association of Colleges and Secondary Schools, by its Committee on English, in March, 1922. That part of the report which relates directly to the junior high school follows.

Grade VII

A. COMPOSITION

The materials for composition in Grade VII should be derived from the children's play; their work in school and out; their direct observations of processes, scenes, objects, and occupations; the books they read; and their imagination. The nature and spirit of written work most appropriate for this grade may be found in informal letter-writing which draws its content from the sources named earlier in this paragraph. Formal compositions and themes assigned as such should be discouraged.

B. MINIMUM ESSENTIALS

To secure correctness there must be secured a mastery of at least enough of the technique of language to include subject and predicate, object, predicate noun and adjective, recognition of the parts of speech by function, inflection of nouns and personal pronouns for number and case, the idea of tense, and clauses and phrases as groups. The results should be sentence-sense, larger vocabulary, increased power of observation, organization, and expression.

To secure correctness there must be attained a mastery of certain fundamentals in the technique of language. In Grade VII, there should be investigation of the language habits of all pupils so that instruction may begin at the proper level. The aim should be to master these topics: recognition of the parts of speech by function; subject and predicate, object, predicate noun and adjective; inflection of nouns and personal pronouns for number and case; the idea

¹ Rochester, N. Y., Course of Study for Junior High Schools, 1919.



Photographs by courtesy of Board of Education, Detroit

Auditorium (above) and library (below), Hutchins Intermediate School,
Detroit, Michigan.

of tense; clause and phrases as groups of words with the functions of single words; and necessary punctuation. Words used in all school subjects must be spelled correctly.

C. READING

For the general reading in this and the following grades, there should be provided a wide range of books, papers, and magazines dealing with wholesome living, worthy home membership, vocations, citizenship, the worthy use of leisure, and right conduct. Poetry, fiction, science, art, ethics, civics, sociology, history, biography, and travel should be included, both new and classic. For class work in Grade VII, some of the shorter poems of Longfellow and Whittier; *Miles Standish*; *Evangeline*; *The Great Stone Face*; *Rip Van Winkle*; *The Legend of Sleepy Hollow*; *Treasure Island*; *The Gold Bug*; *Stories of King Arthur*; and *The Jungle Books* are of about the right grade of difficulty.

D. INDIVIDUAL NEEDS

In line with the foregoing paragraphs, in Grades VII, VIII, and IX there must be recognition of the wide range of differences in language attainment found in any group of pupils. By the use of objective measurements, weaknesses and proficiencies may be discovered, the needs of individuals diagnosed, and suitable materials of instruction determined. Instruction in language control must increasingly turn away from uniform class procedure toward differentiation and adaptation to individual needs.

A. COMPOSITION

Grade VIII

In addition to the composition materials suggested for Grade VII, it is advisable in Grade VIII, to use civic questions, imaginary journeys, admirable characters in life or books, questions of school life, trips. These may be treated in expositions, narratives, descriptions, conversations, discussions, letters. Particular attention should be given, in this and all subsequent grades, to the art of making well-organized, fluent, and correct recitations and reports in other subjects. Progress should be made in the planning of themes, the manipulation of sentences, spelling, and punctuation.

B. GRAMMAR

The study of grammar in Grade VIII should add a mastery of the essential elements of the sentence (subject, predicate, modifiers, connectives), of clauses as parts of compound and complex sen-

tences, of common and proper nouns, of classes of pronouns, of the person, number, and voice of verbs, of the classification and comparison of adjectives and adverbs, of the choice of prepositions, of conjunctions as coördinating and subordinating.

C. READING

As material for class work in literature in Grade VIII, some of the short poems of Holmes, Lanier, Riley, and Field; *Snowbound*; *The Lay of the Last Minstrel*; *Horatius*; *The Tales of a Wayside Inn*; *Norse Myths*; Cooper's novels; *Kidnapped*; *Captains Courageous*; *Rebecca of Sunnybrook Farm*; *A Midsummer Night's Dream*; *The Tempest*; Franklin's *Autobiography*; and Warner's *In the Wilderness* offer a reasonable range.

A. COMPOSITION

Grade IX

Particular vocations and current events may be added in Grade IX to the composition materials. The most available means of attaining clearness, force, and interest in composition should be presented informally; the chief features of explanation and narrative should be learned inductively; much drill should be devoted to social and business letters, spelling, word structure, and punctuation. At the end of Grade IX, a pupil should be able to avoid any ordinary error in grammar, to improve expression by varying grammatical structure, and to write good social and business letters.

B. GRAMMAR

Such grammar should be taught as is necessary for use or to supplement previous deficiencies.

C. READING

Among the poems suitable for Grade IX are *Hervé Riel*, *The Courtin'*, *The Lady of the Lake*, *To a Skylark*, *The Concord Hymn*, *On First Looking into Chapman's Homer*, *My Captain*, *To Helen*.

Poe's *Purloined Letter*, Hawthorne's *Ambitious Guest*, O. Henry's *Chaparral Prince*, Davis's *Gallegher*, and Hale's *Man Without a Country* are the kind of stories recommended for this grade. *Ivanhoe*, *Quentin Durward*, and *Kim* are desirable novels; *Julius Caesar* is the best play; Irving's *Christmas Sketches* are useful; and Palmer's *Odyssey* and Bryant's *Iliad* (in part), with related myths, are well-nigh indispensable.¹

¹ Report of Committee on English, North Central Assoc., March, 1922.

CHAPTER TEN

FOREIGN LANGUAGES

THAT foreign languages constitute subjects of study worthy of inclusion in most types of secondary schools is, doubtless, a statement that few educated men would challenge. That these studies merit the emphasis which has been placed upon them during the past three hundred years, or that they are absolutely essential to the effective intellectual and moral training of all types of pupils, is a belief that is today being questioned, if not completely denied, by many.

The reasons for the criticisms directed against much of the language work in the schools are: (1) inability on the part of many individuals who have studied foreign languages to make effective use of them; (2) the reversal of the dogma of formal discipline, which for so long a time served as an argument for the study of languages; and (3) the growing belief that true culture consists of large stores of information relating to contemporary life and of specific disciplines connected with current affairs, rather than of a training centered almost entirely in experiences remote from the direct concerns of the world today.

These criticisms in no way seek to deny the enormous values which the study of the past has for the present. Each generation stands, so to speak, upon the shoulders of the earlier one. Life is an evolution. Doubtless all that is good and beneficent in the past is exerting its influence upon the world today. To appreciate fully the significance of many of the current social, economic, and political activities and practices, it is necessary for an individual to trace them to their origin. However, the conviction is strong in many educators that the tracing process is not necessarily to be car-

ried on in various languages. The best of the past can be learned by means of translations and treatises prepared by professional scholars.

Nevertheless, foreign-language study, for certain pupils, yields positive values of such a nature that they may not be ignored. The subject is firmly established in the curriculum, and rightly so. The pertinent questions relating to it are, therefore, those pertaining to the particular language or languages to be provided, the aims to be sought through study, the selection of the content material, the place accorded to the subject in the organization of courses, and the methods to be employed in its teaching.

In seeking to answer these questions, let it not be forgotten that the fundamental aims and purposes of the junior high school are first, to discover the individual and his world to the pupil himself; and second, so to guide and direct him in his choice of school work, life vocation, and conduct that he may realize, as completely as possible, the personality which is potentially his, and may, through the realization and expression of his personality, accept his share of responsibility and make a definite contribution to the world's happiness. Hence, merely as an agency for testing pupils' capacities, interests, and tastes, foreign-language study in the junior high school finds ample justification. For pupils who can profit from an extended course in languages, the opportunity to begin linguistic study in the seventh or eighth grade is both a personal right and a social advantage. Besides, it is a well-accepted pedagogical principle that the most appropriate time in which to begin to study a foreign language is in the earlier years of life.

THE NEED FOR A GENERAL INTRODUCTORY COURSE

Just which language shall be used as a try-out language is not easy to determine. There is much to be said in favor of

offering a general course of foreign languages in the seventh and eighth grades. Few pupils know whether it would be wisest for them to study Latin or German or French or Spanish. A one-semester course respecting the territory, people, civilization, language, literature, and history of Rome, Germany, France, and Spain would have much merit. This does not, of course, mean that in a five months' course, five weeks should be devoted to the study of each one of four languages. What is advocated is a course *about* foreign languages and the peoples who speak them rather than a course *in* several foreign languages. Such a course would teach facts concerning the geography, history, literature, beliefs, customs, and institutions of foreign nations as they appear in relation to the languages in question. The work should, for the most part, be conducted in English, with incidental use of foreign terms and expressions by way of illustration, and extensive use should be made of maps, pictures, charts, lantern slides, and blackboards. The aim of such a course would be to enable pupils to know the form of various languages; the purpose and significance of foreign-language study in general; and what advantages each particular language possesses over other languages as a subject study. Furthermore, a course of this type might be expected to yield an appreciation of the culture and civilization of foreign peoples — the chief, though often unrealized, end of more extensive foreign-language courses in senior high schools and colleges.

A course of this kind is confessedly open to the criticism that it is not primarily a course in foreign language, but consists of historico-sociological material. That criticism, however, holds true in regard to a large portion of the material which enters into nearly every course in foreign-language study in schools and colleges. The distinctive merit of a general course is its frank acknowledgment of emphasis

upon *content* values rather than *form* values. The object of the course would, therefore, be realized, if pupils who pursued it were guided fittingly in electing formal courses in language study later in their school years. Moreover, to make a course of this kind at all profitable, it would be necessary to have the services of a highly cultivated teacher. The idea is not altogether a new one. It has its prototype in certain "appreciation courses" to be found in several schools of the United States. It is advanced here, not as a recommendation, but as a plan for a promising experiment. The measurable results of its operation would either justify its retention or warrant its abandonment.

In full accordance with the suggestions made by the author of this book for an introductory course in foreign language in the junior high school are the views of Dr. J. K. Van Denburg, of the Speyer School, New York City. In *The Junior High School Idea*, Dr. Van Denburg shows how unsatisfactory have been the experiments at the Speyer School in respect to language instruction and asks if the first and most important task is not that of "establishing an intellectual and emotional *predisposition to like the work.*" He continues:¹

If we accept this basis temporarily for our junior high school work, the first six months of any language study may well be spent upon a daily study of the people who speak the language, their home country, its history, and its geography. Its government, past and present, will be considered, though not too formally. Especially will its national heroes and heroines receive attention, as will its legends, myths, and superstitions. . . . All this precedes any formal study of the language itself. . . . In our junior high schools the study of the language as a language will follow several months of this gradual social introduction.¹

The idea of an introductory course in foreign language has already taken firm root in some school systems of the United

¹ *Op. cit.*, pages 151-152.

States. The following circular letter issued by the school authorities of Youngstown, Ohio, in 1921, shows what has been undertaken in that city :

General Language Course

The first course which the foreign language department offers is the General Language Course in the first semester of the 7th grade in the Junior High School. The fundamental principle which rules in the organization of the Junior High School courses is that "the course shall continue the integrating effect of education and also result in desirable gradual change into complete differentiation." This principle will be dominant in the organization of the General Language Course. It will be required of all pupils, and will confine itself to the fundamentals of language (not necessarily foreign language). However, in the work done in the course, foreign languages as well as the vernacular will furnish materials, and this will enable the instructor to lead the pupil gradually toward succeeding differentiating courses in foreign language.

Another guiding principle in Junior High School curriculum making is that the courses must be practical in themselves, acquaint pupils with possibilities of higher education, and make future election more intelligent.

Therefore, we expect, first of all, that the course will be practically and immediately valuable in content. Foreign language courses particularly have been accused of doing much work at the beginning which is valuable only on condition that work be continued two or more years thereafter. This criticism is largely just. This first semester of work will be, therefore, complete, and valuable in itself. The pupil will build upon and continue his previous language work, working with some of the materials and methods of foreign language instruction. The work must be non-technical and the results immediately applicable.

In this way, we expect that the General Language Course will coöperate with the other early courses of the Junior High School in the work of discovering the varying aptitudes, capacities, and needs of the adolescent, making it possible for the student and his adviser to decide intelligently as to the advisability of his entering differentiated foreign language courses which follow the General Language Course. For the organization and specific outcome of

this course, we shall quote from the Outline: "This course is designed to give to the students a general elementary idea of language as such, through the medium of comparison between the English and foreign language, chiefly Latin. It is required of all students and will lead equally well to future work, in either English or foreign languages. The course will be conducted largely as a laboratory course, with materials furnished by the teacher and pupils. The aims of this course specifically are: (1) to study the origin, growth, and influence of language in human history; how man began to use language, how he improved this tool, and how this wonderful tool in turn proved to be the greatest of all human forces in elevating man to his present position in the world; (2) to study words, their history, their prefixes and suffixes, etc.; (3) to develop a feeling for the significance of phrase, clause, and sentence structure, in the expression of thought; (4) to study such fundamentals of grammar and syntax as will prove valuable tools for future language work, whether English or foreign, not by formal grammar study, but by experiment; (5) to discover such students as have capacity for advanced language study and to encourage them to continue this preparatory course by the study of foreign languages."

The outline then gives in greater detail suggestions of materials and methods used. Some of these are as follows:

- (a) Development of spoken language from grunt and growl of the first cave men to the highly developed modern languages.
- (b) Development of civilization from the most primitive family group to highly organized community life — emphasis constantly being directed toward the necessary development of language along with that of civilization.
- (c) Development of written language from earliest picture writing, hieroglyphics, cuneiform, Phœnician, Greek, Roman, to English, with a comparison with German, Hebrew, etc.
- (d) Spread of Roman control as it affected language. Greek colonies.
- (e) History of England with relation to language.
- (f) Sheets in hands of pupils containing:
 - (1) Words with an interesting history.
 - (2) Words adopted from various languages but considered English words.

- (3) Words in common use from several languages compared; e.g., *father* in Latin, Greek, Anglo-Saxon, French, Spanish, German, English.
- (4) Latin and French expressions in everyday life.
- (5) Latin mottoes and conversational French expressions.
- (6) Elementary Latin: simple sentence, short easy dialogues.
- (g) English sentences and selections from good authors for the study of parts of speech and sentence structure.
- (h) Most common Greek, Latin, Anglo-Saxon prefixes and suffixes.
- (i) Systematic dictionary study for parts of speech, substituting dictionary meaning in sentences, preferred pronunciation, derivation, synonyms, etc.

Whether or not a general course in foreign-language study is introduced, it seems the part of wisdom to insist that foreign-language study shall not be pursued by a pupil in lieu of the courses in English provided in the several grades of the school. Such a general course should be wholly supplementary to the English courses. The try-out or introductory course *about* language might very properly be prescribed for all pupils. Beyond that one course, the work should be wholly elective. Moreover, there is little justification for holding to the rule that no credit will be given for language study unless two full years are devoted to it. A single-semester course, if properly organized and taught, should yield credit values for all pupils. To hold to a standard that demands two complete years' work if the subject be elected at all, tends to discourage the cautious student from undertaking it and to encourage the inapt student to continue his unprofitable efforts for the sake of insuring the little credit he has already conditionally earned. Persistence and perseverance are assuredly qualities that need to be cultivated in the schools. But there is no great educational value in continued and continuing defeat. "Nothing

succeeds like success" is a maxim made venerable by age; but the opposite statement is equally true, "Nothing fails like failure." Educators need to appreciate this fact and, while not making the irregular transition from course to course an easy transition, they should be careful not to penalize too heavily the child who, for valid reasons, desires to make the change.

THE PLACE OF LATIN IN THE FOREIGN-LANGUAGE COURSE

Of the various special languages under consideration for the junior high school, Latin has, by all odds, the best claim to recognition. The reasons for this assertion are:

- (1) Latin is the mother of many of the modern European languages, and a knowledge of Latin helps pupils later to acquire these languages.
- (2) A large percentage of English words are derived from Latin, so that a knowledge of Latin contributes much to the comprehension and mastery of English.
- (3) Whatever values of formal discipline inhere in any language may be found in Latin, and to a greater extent than in most other languages.
- (4) Latin is prescribed for admission to many colleges, and in many colleges is accepted as satisfying the language requirement.
- (5) Latin is prescribed for admission to many professional schools, such as those of medicine, dentistry, pharmacy, law, and theology.
- (6) Latin is prescribed by many state certifying boards which have to determine the educational and professional qualifications of candidates for licenses to practice various professions, among which are the pharmaceutical, dental, and medical professions.

Professor J. B. Edmonson, Inspector of High Schools for the University of Michigan, in speaking particularly of the small high school (and the thought applies equally well to

the small junior high school) supports the primacy of Latin thus :

I am glad to report that Latin is given a favorable place in the program of studies in the typical Michigan high school. The number of students electing Latin is relatively large and is increasing in many of our schools. The talk, therefore, in some quarters that Latin is on the decline is not well founded when reference is made to the present conditions in Michigan high schools.

I am especially interested in the place of Latin in the program of studies in the small high school. It is my opinion that Latin is the best foreign language for the small school to offer when the limitations on the program of studies are such as to force a choice. I base this opinion on the following facts : I find that Latin satisfies more of the occupational needs represented in the student body of the typical high school than does any other foreign language. For the student planning to enter college, the Latin satisfies the usual entrance requirement in the languages. For the student intending to specialize in English or a modern language, a knowledge of Latin is imperative. For the student expecting to enter the ministry, law, medicine, dentistry, or pharmacy, a certain minimum of Latin is usually a definite requirement.

I very frequently tell boards of education that are interested in organizing a so-called practical program of studies that they must certainly give Latin a place because of its large prevocational or preprofessional value, and I have yet to find a board that has refused to admit the truth of this claim.

I advise the choice of Latin in the small school for the further reason that well-trained teachers are easier to secure for Latin than for the other languages, and, in the end, the teacher is of more importance than the content of the course. I might also add that the unsolved problems for the small school of aim, method, and content are not so perplexing in Latin as in certain other studies.¹

AIMS AND METHODS IN THE TEACHING OF LATIN

In stating the aims of Latin teaching, the Committee on Ancient Languages in Bulletin No. 41, 1913, declared :

The following are some of the aims which seem worth while : to enrich the English vocabulary, both by the addition of new

¹ "Latin in Michigan High Schools," *Moderator Topics*, page 83, 1920.

words and, particularly, by a more perfect mastery and clear understanding of many of the words already in use; to develop an appreciation of word, phrase, and clause relations; to teach clearness and accuracy of expression, both oral and written; to develop habits of industry and application; to make the pupil an intelligent critic of his own oral and written speech and that of others; to lay a good foundation for the study of English and of other modern languages; to read some of the great Latin masterpieces; to give a wider view of life through familiarity with a great civilization remote from the present, both in place and time, "in the cool, calm air of noncontemporaneous events."¹

Similarly, in giving advice respecting the choice of subject matter to be studied, the Committee says:

The subjects for reading should be short and varied. Let us imitate our confrères of the modern languages, who do not make their pupils read dry military and political histories the second year or any other year, but offer bright, entertaining, and varied selections, which, while not too difficult, entertain and at the same time instruct. To students in the modern languages, grammar is the drudgery which is relieved by the reading of appropriate texts. To students of Latin the grammar is no less difficult, but the selections for reading are so much harder than the grammar that the situation found in the modern languages is reversed.

The text read, beginning with the simplest and easiest Latin, should, so far as possible, have an interesting and rich content. The fables and myths in the early period of study should be so selected that they would not only provide excellent training in reading Latin, but furnish as well a fund of legendary and mythological lore which would be of great value in the understanding and appreciation of English literature. If properly taught, the interest in the reading matter would be so great and the relation of the grammatical work to that reading matter would be so direct and clear that an adequate motive for mastering the necessary technicalities of grammar would be supplied.¹

In this connection, the following extract from a letter addressed to the author by Principal P. W. L. Cox, describing

¹ "Reorganization of Secondary Education," United States Bureau of Education, page 36.

the manner in which Latin is taught at the Ben Blewett Junior High School, St. Louis, Missouri, is of great interest :

Our aim is to teach pupils to read Latin ; i.e., to translate Latin into idiomatic English.

With this aim always before us, we eliminate much of the formal grammar usually taught in the first year. We attempt as far as possible to teach all grammatical relations as they function in the reading. We reverse the order usually laid out in first-year books, of (1) forms, (2) model sentences, (3) rules, (4) exercises ; and give (1) sentences, (2) forms, (3) rules. No model sentences are necessary. We teach no English-Latin sentences, because attention to these detracts from the accomplishment of our aim.

Our actual procedure is as follows :

For lack of suitable material we are compelled to use our first year text, Smith's *Latin Lessons*, for about ten weeks, supplementing with stories in the Appendix and material printed in our school press. This takes us to page 40. We are now ready to study Latin as we believe it should be studied ; i.e., from connected prose, graded to the ability of first-year pupils. For this we use *Fabulæ Faciles*. From this point, all our teaching is inductive. The pupils keep notebooks in which they record from dictation their vocabularies, classified, their rules of syntax, and their daily assignments.

It is obvious that only a few words are chosen for intensive study in comparison with the large number used in reading. But these few form a nucleus for all drill on forms. We read many forms long before they are memorized. For example, the pupils translated fourth declension nouns before they could recite the declension.

For rapid vocabulary work, we have all our words written on cardboard (about 3" \times 8"). On one side is the Latin word, on the other the English. These we use in reviews.

We relate Latin to English use in every possible way. We have three wall charts made by the pupils : (1) Everyday Latin Expressions, (2) A Lawyer's Use of Latin, (3) Latin Mottoes on State Seals. The material was collected by the pupils. This adds interest in Latin as a vital subject. Other devices for vitalizing Latin are singing *America* in Latin ; short dramatizations ; and conversations. We make a great deal of English derivatives, especially in the beginning. Time spent on this is time gained. Every little while, we spend one whole lesson on such work.

We make frequent use even in eighth grade classes of Harper's

Latin Dictionary and *Dictionary of Classical Antiquities*. The latter we use to look up topics occurring in the reading, such as *Delphic Oracle*, *Roman marriages*, *Vesta*, etc. These are assigned to individual pupils for short reports to the class. This work is purely voluntary.

There is a well-supported belief on the part of many classical students and practical educators that any attempt to transplant the traditional beginning course in Latin into the junior high school is doomed to failure. Junior high school pupils are capable of learning Latin, but the greater number of those who can be persuaded to elect it require some other incentive than that of preparation for additional Latin or for college admission.

Among the classicists who hold this belief is Dr. Mason D. Gray, Head of the Classical Department of the East High School, Rochester, N. Y. Dr. Gray has written several useful books relating to the subject. In his *Introductory Lessons in Latin and English, Part One*, he states his position thus:

In constructing a Latin course for the junior high school, our aim has not been to push the traditional high school course in Latin into the lower grades and thus merely to begin the study of Latin along traditional lines one year earlier. The new unfettered junior high school organization has created an exceptional opportunity, of which the utmost advantage has been taken, for reorganizing the course in beginning Latin on a distinctly socialized basis with the definite and determining object of making every element of the Latin course perform the largest possible direct service to the pupil. . . .

In determining exactly what the legitimate goal of Latin in the junior high school is, the author has been guided by four cardinal principles.

(1) In the first place, these introductory lessons are based upon the principle that Latin is not an end in itself, but a means to specific, definable, and attainable ends, involving direct service to the pupils who are studying it. By "Latin as an end in itself,"

I refer to that view which conceives the primary purpose of the study of Latin to be the acquisition and retention of the language as a language, for the sake of those remoter ends which are contingent upon such knowledge, such as the power to read and appreciate Latin literature. While this may be a legitimate goal for a very small percentage of those now studying Latin, it cannot be accepted as a primary justification for maintaining Latin in its present position as an essential element in the curriculum of our democratic secondary schools. If this is true, then — conversely — the legitimate ends of Latin study are those which can be realized *pari passu* with progress in the subject and which continue to function after any capacity to read Latin has been lost. That the great majority (probably ninety-nine per cent) of the half-million pupils now studying Latin in our secondary schools will never learn to read Latin in any real sense of the term is an obvious fact too patent to require demonstration, and one that has supplied the enemies of the classics with the greater part of their ammunition.

(2) The second cardinal principle is that whatever are determined upon as the specific aims of Latin — practical, disciplinary, and cultural — should become forthwith the determining factors in the selection of material and the choice of methods, two problems that in Latin are not automatic in their action, but depend for their realization upon the conscious adaptation of the means to the ends desired. In this respect, comparatively little progress has been made. Our teaching of Latin today is, generally speaking, hardly less completely an expression of the traditional ideal of Latin as an end in itself than it was before that ideal was challenged. It is, in fact, a curious anomaly that, with the general recognition among secondary school teachers that the aims of Latin should be restated in terms of modern life with strict intellectual honesty, there has, nevertheless, been persistently associated an unshaken confidence that, somehow or other, whatever are stated as the aims of Latin are automatically secured through its study. . . .

(3) The third controlling principle is that the work of any term should be determined, not by the needs of those who will continue the subject through the following year, but by the needs of those who will not go beyond the work of that term, a group that in many classes comprises approximately fifty per cent of the pupils. The present situation is precisely the reverse of this, and is the tangible expression of the college pressure which, however illegitimate it has

come to be regarded theoretically, is still practically the dominant and controlling force in the teaching of secondary Latin. We believe that the course in Latin should be so organized that, while its cumulative capacity is fully recognized and maintained unimpaired, nevertheless, a week, a month, a term, or a year of Latin shall yield results in proportion to the time spent.

(4) It follows that there should be in the mind of every teacher an explicit consciousness of the values inherent in Latin and that, so far as the developing powers of the pupils permit, they should also be made conscious of those values and of the relation of their specific tasks to the realization of those values. The pupils' conception of the value of Latin should begin the first day on a concrete basis and should be gradually developed until it corresponds to the conception in the mind of the teacher.

Again, Dr. Gray in his *The Study of Words and Their Uses* speaks thus :

It is a curious anomaly that the writers of our textbooks appear to believe that the mere fact that Latin is the basis of English, as stated in their prefaces, will automatically insure the pupil's using his Latin to interpret his English. They labor under no such delusion in presenting any other phase of the work. The pupil is confronted on every page with exact material to be mastered in vocabulary, syntax, and inflections. The teacher is not left to evolve these facts haphazard on the spur of the moment, nor is the pupil left to do something or nothing as he chooses. And yet in the more difficult problem of teaching the pupil to apply these facts elsewhere than in Latin, we make both of these mistakes. Material just as definite and just as scientifically selected as in inflection should be at the immediate disposal of the teacher, and the textbook should provide the pupil with material on which to work, just as definite as is the Latin vocabulary itself.

The importance of a word in first-year work should be determined not solely by the frequency of its occurrence in Cæsar, Cicero, and Vergil, which but a small percentage of the first-year pupils will read, but equally, if not more, by its occurrence in contemporary biology, algebra, and English. The scientific basis for such a selection is at present lacking. For amid all the doctors' theses that cumber the shelves of classical libraries and amid all the specialized lexica that cover wall upon wall, there is available no

work that attempts to perform the eminently practical task of determining either what Latin words are most important for interpreting the language of modern life, literature, and science or what English words would, when their derivation was known, furnish the key to the largest and most important group of English words. Until these two problems have been solved, any work such as the present must be wholly tentative.¹

Six of the faults connected with most Latin teaching of today are set forth by another classicist, Edwin L. Miller, Principal of the Northern High School, Detroit, Michigan. He says :

- (1) It is dull.
- (2) Teachers assume it has an impregnable place in the curriculum and hence do not sell it to their pupils.
- (3) Teachers assume that there is some mysterious virtue in making it so dry and distasteful that half their pupils drop the subject in disgust as soon as they have a chance.
- (4) The subject matter selected is not the fittest.
- (5) The writing of Latin prose is a fetish to the teachers and a nightmare to the children.
- (6) Too much time is spent in teaching the quantity of vowels.

Mr. Miller then raises the question of the material to be selected for study and says :

Why cannot Latin teachers imitate English teachers, form a National Council of Teachers of Latin, hold a yearly convention, and find fit matter for their pupils to read? Is it because there is no fit matter? Is it because Latin teachers cannot translate any Latin except what they have studied in the teachers' courses in college? Why insist that we must read only Latin of the Augustan age? . . . One of the most engaging aspects of Latin study, the home life of the Romans, is now almost entirely neglected. Their ideals and observations are strangely modern. . . . Probably no subject contains more of the real metal of citizenship than Latin. Yet it is a mine practically unworked. From Livy, Tacitus, Cicero, Pliny, Horace, Vergil, and the Latin Vulgate can be dug a

¹ *Op. cit.*, pages 3 and 4.

mass of social and political wisdom that is a great deal more up to date than most of the stuff . . . printed . . . in the Sunday papers. . . . Why not read Tacitus's account of the Christians, Seneca's prophecy of the discovery of America, the *Animula Vagula Blandula*, the *Dies Iræ*, one or two scenes from Plautus and Terence, one or two poems of Catullus, several of Horace's odes, the *Gaudeamus Igitur*, and Professor Gayley's *Gloria Victoria*?¹

Why not, indeed?

MODERN FOREIGN LANGUAGES

As already stated, many practical and pedagogical considerations suggest that if but one foreign language is offered in the junior high school, that language may most profitably be Latin. If a modern foreign-language is offered, French (or possibly German) seems to be the most desirable one to include. The two languages — Latin and the modern language — ought surely not to be begun by pupils simultaneously. Nevertheless, it must not be forgotten that much of the value of foreign-language study is cumulative in its effect. That is, the longer it is studied effectively, the greater will be the proportionate returns to the individual. But when once a fair appreciative knowledge of any language is acquired, it is questionable whether it is worth while to pursue it further, *unless* the individual proceeds sufficiently far in his studies to give him a real command of the subject. This command may be a reading, a speaking, a writing command, or it may be threefold. In view of the generally unsatisfactory results obtained when all three objectives are sought, it seems to be the part of wisdom to concentrate effort upon a reading command of the modern languages, and not strive to attain to a speaking or writing command. But in order to obtain any command of a language more

¹ "The Place of Latin in the Reorganized Secondary School," *Moderator Topios*, pages 572 *et seq.*, 1920.

than two years' work is necessary, and beginning the modern language in the seventh or eighth grade is one way of making prolonged study possible.

The ideal which makes a reading knowledge of the modern foreign languages the primary goal in no wise denies the validity of the direct method. Sufficient data have not yet been collected to warrant a positive conclusion as to the worth of that method in giving a reading command of foreign words. The common impression among many students is, however, that it does contribute greatly to the reading ability.

The essential features of the direct method of foreign-language instruction are thus set forth in Bulletin No. 3, 1913, the United States Bureau of Education :

The method, as its name indicates, plans to teach the foreign language by imitation, without much intervention on the part of the mother tongue. However, it also makes use of the analytical and synthetic methods to a great degree, in that the reading matter is thoroughly analyzed into its parts and construed, later to be reconstructed in original paraphrases. The direct method makes use of all that is valuable in the other methods, and thus may be considered an eclectic method which is eminently adapted to our modern education with its varied demands. The tenets of the method, as they stand out both in theory and practice in the schools of Germany, are as follows, although, as stated above, not all German teachers have embraced the new method, nor do even all of the progressives introduce the strict phonetic drill :

- (1) Phonetic drill is given in the elementary stages of the instruction.
- (2) The foreign language is the medium of instruction.
- (3) Reading forms the center of instruction, but there are well-planned conversation lessons at each hour.
- (4) Grammar is taught inductively, in part or entirety.
- (5) The teaching of composition is limited to "free composition," i.e., original writing on a set theme, or on the reading lesson, etc.
- (6) Translation into the mother tongue is limited to a minimum.

- (7) Object teaching is used in the early stages.
- (8) *Realien* are used extensively.¹

CONCLUSION

In conclusion, it can be said with a great deal of positiveness (1) that foreign-language study has proved effective when offered in the seventh and eighth grades, provided the material and the teaching methods have been adapted to the capacities and interests of the pupils; (2) that some kind of general or introductory course seems to offer advantages as a first course in foreign-language study; and (3) that, of the specialized language courses, the course in Latin appears to have the first claim to recognition in the junior high school.

¹ "The Teaching of Modern Languages in the United States," page 100.

CHAPTER ELEVEN

THE SOCIAL STUDIES

THAT the social studies should become the core of the junior and senior high school curricula is an opinion that is being voiced by many educators, and put into practice by many school administrators. Nor are justifications for the opinion difficult to find. More and more the school is being recognized as a great national agency for the socialization of individuals. To be socialized implies an adaptation and adjustment of the individual to the group, a surrender of a portion of one's independence in order that each may profit the more by the combining of resources and powers delegated to a common authority. To be socialized, therefore, is to be humanized, to be possessed of group consciousness, and to exercise magnanimity toward all one's associates and in all one's relationships.

Now, from the earliest days, a study of man and his activities has always been held to contribute to this end. Hence the subjects of history, literature, language, and philosophy have been given a prominent place in every humanistic curriculum. But, so far as the secondary schools are concerned, the foremost rank among all of these studies has, in recent years, been occupied by history.

TEACHING OF HISTORY AS THE FOREMOST SOCIAL STUDY

There is good reason to think that in the amount, the kind, and the arrangement of the work, the teaching of history has not been organized to the best advantage. Certain it is that the social results obtained have not been entirely satisfactory. Neither has historical interest among boys and girls been so keen as might be wished.

In part, the faults which are responsible for these defi-

ciencies are three : (1) the lack of any systematic instruction in history other than American in the elementary school; (2) the encyclopedic nature of the history work offered in the seventh and eighth grades; (3) the difficulties incident to the course in ancient history in the ninth grade.

In regard to the third point, it may be said that boys and girls of twelve and fourteen years of age have so shallow a literary, social, and political background that only rarely is it possible to arouse in them a vital interest in ancient history. The events described are so remote in point of time, the treatment of the topics is frequently so needlessly detailed and formal, and the articulation of ideas with present-day affairs is often so loosely made, that the work becomes little more than a jumble of words. What is needed is a simpler and more concrete approach to the various specialized courses in history than the one that is commonly offered at present. Moreover, at its best, history is a dead subject; it deals with events that happened long ago; it is usually written in the past tense. Young students, however, are chiefly concerned with the present and the immediate future. They are looking forward, and not back. They do not interpret life by means of ancient historical events but read its meaning largely in the circumstances of the present day.

This does not mean that history may not be made to appear alive and real to children and young people, nor that pupils who are wisely instructed may not be intensely interested in the events of the past. Evidence in support of this contention is everywhere to be found. Children like nothing better than a good story well told — and a story is usually written in the past tense. Moreover, since all the human institutions of the present strike their roots more or less deeply into the past, a clear comprehension of the significance, organization, purpose, and operation of these institu-

tions can be obtained only by a study of the forces of which they are the resultants. Therefore, whoever believes in the theory of social evolution must accord an important place in our system of education to the study of history.

DESIRABILITY OF A NEW COURSE IN CITIZENSHIP

But the training for effective citizenship cannot stop with the acquisition of a fund of historical information, nor with a mere interest in the past. Citizenship is called upon to deal with social situations as they exist today and as they will arise tomorrow. Hence, courses in history must be supplemented by courses of study dealing with current events, current social theories, current social problems, and current human relationships of many sorts. Nor will it suffice to allow these matters to remain merely interesting bits of knowledge for pupils. The knowledge must be made to operate in the lives of the boys and girls more or less immediately and to establish in them desirable social attitudes. In other words, the inculcated historical and social impressions must be transformed into guiding principles of conduct.

To attain to these ends, a new division of social science ought, it would seem, to be added to the curriculum. This new course should deal systematically with current social questions and practices. It should contain elements of geography, civics, sociology, economics, political science, vocational activities, avocational interests, current events, and other matters of human interest. Let the course be called *Citizenship*, *Sociology*, *Social Science*, or whatever name seems most appropriate; but let it be provided as a separate course, related to the courses in history, yet not a dependent part of them, and coördinate with all other departmental divisions of the program of studies. Just as, in colleges and universities, the courses in political science, sociology, economics, and

A SUGGESTED REFORMED SOCIAL SCIENCE PROGRAM

	7TH GRADE	8TH GRADE	9TH GRADE	10TH GRADE	11TH GRADE	12TH GRADE
1. History	A. Biographies of World Heroes $\frac{1}{2}$ B. Backgrounds of American History in Europe $\frac{1}{2}$	United States History	World History or The World War and Its Causes	Ancient History	Modern European History	United States History
2. Citizenship	A. Geography B. Current Events C. Current Social Problems D. Club Work	A. Geography B. Current Events C. Current Social Problems D. Club Work	A. Community Civics $\frac{1}{2}$ B. Vocational Civics $\frac{1}{2}$	A. Economic Geography	A. Elementary Sociology $\frac{1}{2}$ B. Elementary Economics $\frac{1}{2}$	A. Government or Elementary Political Science

geography, because of their expansion and refinements, have been set off from the courses in history, so it would seem that the time has arrived for like procedure in the secondary schools.

Thus, the work that has commonly been designated *social sciences* in the high school might be arranged with appropriate additions in two parallel types of courses.

That a course of this kind seems on the way to formation is indicated in the report of J. M. Glass, Director of Junior High Schools in the State of Pennsylvania. He says:

In time, the term, "general social science," will be used as extensively as are today the terms "general science" and "general mathematics." The exploratory and preview values of this course will be coextensive with the whole junior high school period. Such a course will provide an apperceptive basis for advanced courses in the cross-sections of world history, economics, political science, and sociology. The discovery of interest and capacity is as probable in the field of social science as in the field of natural science. Furthermore, the discovery and stimulation of interest and capacity for social science are vital to the fields of public and social service.¹

Numerous approximations to the spirit of the plan outlined above have already been made in many secondary schools, if indeed the form itself, in its essential characteristics, has not been approved and adopted. The primary element in the social sciences is the time element, an element which, in the very nature of the case, can only with difficulty be comprehended by immature persons. It follows, therefore, that the values derivable from a study of the social sciences are cumulative values and that the work should extend over a relatively long period of time. It is for this reason that definite attention to humanistic questions should be given to pupils from the earliest grades in the school. Doubtless little systematic textbook study can be expected

¹ Circular, Pennsylvania, 1922.

before the end of the sixth grade, but during the first six years much incidental social knowledge can be imparted. Beginning with the junior high school, this knowledge should be extended and utilized in a way that will serve definitely in interpreting life in a complex democracy. To this end, it seems wise that during the first half of the seventh grade the course in history should deal with the lives of world-renowned heroes and heroines. It is probably true that biographical studies as an agency for revealing the great revolutionizing, social forces that have been operating in world history since its beginning must necessarily be deferred to a somewhat later period. At twelve or thirteen years of age, however, pupils have reached the stage when they are intensely interested in human beings not only as human beings, but also as authors and interpreters of social processes. Here, then, is a time in which historical studies centering upon notable men and women can have a strong influence. Moreover, unless pupils of this age are given an opportunity to become acquainted with the more significant human movements of the entire past, many of them, because of withdrawal from school, will never learn of these movements in any systematic way. Within the course, biographical studies like the following, correlated with their social events, might well be included: Khufu, Nebuchadnezzar, Solomon, Cyrus the Great, Xerxes, Confucius, Lycurgus, Pericles and the Golden Age of Greece, Cincinnatus, Hannibal, Pompey, Julius Cæsar, Augustus Cæsar, Alaric, St. Benedict, Mohammed, Charles the Great, Alfred the Great, William the Conqueror, Robert Bruce, Joan of Arc, Frederick Barbarossa, Peter the Hermit, Lorenzo dei Medici, Marco Polo, Martin Luther, Queen Elizabeth, Philip II of Spain, William the Silent, Mary, Queen of Scots, Gustavus Adolphus, Cromwell, Marie Antoinette, Napoleon, and Bismarck.

The importance of the study of history in a civilization like ours and the disfavor in which the subject is at present held by many pupils in the schools give warrant for a certain amount of experimentation in the teaching of this subject. Wherever courses similar to the one advocated here have been provided many favorable results have been obtained, as witness, for example, the work in Berkeley, California.

That an elementary but systematic study of the European influences which affected colonial history in America is desirable before taking up the more detailed story of the development of the United States seems substantiated both by reason and by the experience of practical educators. Undoubtedly, too, the prolongation of the elementary course in United States history throughout the entire eighth grade has its justifications. The work, however, should not be too formalized and it should not be left uncorrelated with either geography or the current interests of today.

As Professor James Harvey Robinson has recently said in a public lecture, history serves its chief function as an extension of the memory, enabling one to bring to bear upon a contemporary situation much interpretative knowledge. Hence the facts of history ought to be selected with reference to their probable service in assisting pupils to understand better the institutional and social world of today and tomorrow.

INDICATIONS OF THE DEMAND FOR TRAINING IN CITIZENSHIP

How general is the public demand that the schools shall provide more direct and specific training for citizenship can be judged from the discussions that are occurring on all sides.

The National Association of High School Principals, through

the report of its Committee on Social Studies, made in February, 1920, gave its unanimous approval to the following principles :

More time should be devoted than is now the case to social studies other than history. In accomplishing this, social studies should be brought into competition not alone with history. It should be the explicit understanding that the importance of social studies is to be magnified at the expense of English, mathematics, languages, and even the natural sciences. . . . In order to detach the time factor from all other problems it should, we believe, be asserted that social studies, including economic, social, and civic topics drawn from present-day life, should be given a place in every student's curriculum in every year in the junior and senior high schools.¹

Of similar tenor is the following, taken from the Second Annual Report of the Committee of the American Sociological Society on the Teaching of Sociology in Elementary and High Schools :

This concept, usual in the minds of teachers [i.e., the nature of the ninth-grade Community Civics course] is much too narrow. Unfortunately the social institution that all but monopolizes their attention is the government. True, they are not content to study its mere forms, as they were some years ago. They do give some attention to the everyday interests of life with which the government concerns itself. But what they teach is still civics, nevertheless — not general social science. Teachers, as a rule, do not yet perceive that government is only one in the sisterhood of social institutions, and not the most important at that ; that a "socius" is more than a citizen, having many other social interests, activities, and relations besides the civic.

From your committee's extensive correspondence with sociologists it is quite as clear that they have a much broader concept of what should be taught in the ninth grade. It is the consensus of their opinions that this still too narrow "community civics" should now be definitely abandoned in favor of general social science. The adoption of this name is itself desirable for several reasons, but chiefly to suggest to the rising generation that there is a real science of

¹ *School Review*, Vol. 28, No. 4, pages 295 *et seq.*, April, 1920.

society. The course should definitely include sociology, economics, civics, and ethics, although it goes without saying that for pedagogical reasons the material should be elementary, concrete, and descriptive, and that the four subjects should be "fused," after the analogy of general science and unified mathematics as they are now taught in the ninth grade of most progressive schools.

The sociology in this course should be chiefly a local study of the fundamental social groups and institutions; namely, the family, the play group, the neighborhood associations, the school, the church, recreation, etc. In the field of economics, it should make the pupil familiar with the chief vocations, industries, and industrial institutions of his immediate environment. In the field of civics, it should acquaint him with the local civic machinery and teach him how to use it. But while the point of departure in all these fields should be the local environment, the study should not stop there, but should be supplemented with a nation-wide description of social, economic, and political phenomena, with the relations of local phenomena thereto. And while the study should be chiefly concrete, it should not fail to proceed from the concrete to the abstract in so far as general principles can be assimilated by early adolescents. And throughout the whole the ethical import of sociological, economic, and civic relations should be incidentally but insistently suggested. The course should develop the concept of coöperation, and reveal the *raison d'être* for the essential ideals and virtues of life, while the most approved pedagogical devices should be used for motivating and emotionalizing the same.¹

Likewise the geographers have joined in the common cry for reform. At a recent meeting of the Central Association of Teachers of Science and Mathematics, the Committee on Earth Sciences (*Geography*) reported, in part, as follows:

Pupils of the first-year high school are in a trying stage of their lives. They are neither children nor adults. They love romance and adventure. Their imaginations can be put to work on real people in real situations in a way that will give them quite as much pleasure as thrilling tales of adventure that are pure fiction. These children are more interested in people than in anything else. They delight in hearing about strange folk who live a long way off. In

¹ *School Life*, page 3, January, 1921.

imagination they reconstruct and vivify the picture described in the printed page. Geography, so treated, quite as much as history, broadens their outlook on life, keeps them from being too provincial, too snobbish, too ungenerous to people who are different and, to their manner of thinking, therefore inferior. If it could be brought home to them that they and their friends, if put under exactly the same circumstances, would act much as these curious foreign people do, they, a few years hence, might bring a better understanding to our problem of the assimilation of alien people.¹

That geography as a socializing subject has had its values inexcusably ignored by most of our schools can scarcely be denied by any one who takes the trouble to analyze the facts. This mistake must not be perpetuated. Professor R. H. Whitbeck of the University of Wisconsin has summarized the importance in this wise :

In the training of citizens for a democracy, there are four lines of study that go hand in hand in making broad-minded citizens — economics, history, political science, and geography. I am not speaking of physical geography or of commercial geography alone. I am thinking of geography in its broad sense, but particularly of politico-economic geography, the kind of geography that makes men well informed about the nations of the world, which makes them intelligent about other peoples, about their aptitudes, their forms of government, their social institutions, their national likes and dislikes, their military and moral strength, their reserves of coal, iron, copper, and petroleum, the character of their transportation systems. I cannot escape the conviction that education which does this for our young men and women is one kind of education that our nation in this age demands. It is training for citizenship in the broadest sense of the word, not only for performing the duties of a citizen at home, but for guiding safely the nation in its international relations. . . . There is no man or woman who participates actively in the affairs of the community who would not value a thoroughgoing knowledge of geography of his own country and of other countries. It forms a background for intelligent action, it enables people to read more intelligently, to converse and to write and to think more intelligently.²

¹ *School and Society*, January 24, 1920.

² "The Country's Call for Geographers Today and Tomorrow," *School and Society*, Vol. 60, No. 217, pages 225 *et seq.*, February 22, 1919.

More recently, 1922, the Association of Collegiate Schools of Business has proposed a program of social studies for the junior high school and has formulated its principles as follows:

- (1) The organization of social studies in the public schools should be in terms of the purpose of introducing those studies. Their purpose is that of giving our youth an awareness of what it means to live together in organized society, an appreciation of how we do live together, and an understanding of the conditions precedent to living together well, to the end that our youth may develop those ideals, abilities, and tendencies to act which are essential to effective participation in our society.
- (2) This Commission believes that the social studies should be the backbone of secondary education, with which all other studies and school activities should be closely articulated.
- (3) The social studies should be directed toward an understanding of the physiology rather than pathology of social living.
- (4) Any program of social studies that hopes to be successful must be drawn with consideration for vocational needs (and) . . . with recognition of the great losses of our student constituency in certain years.
- (5) Social studies should be presented in the junior high school without too much regard for traditional claims or customary practices.
- (6) An effective program of social studies will be organized in terms of the psychology of learning.

Accordingly the program suggested passes (1) from a seventh-grade discussion of *types* of social organization and some *conditioning factors* of the types, (2) through an eighth-grade survey of the *development* and *practices* of our modern social organization, (3) to a ninth-grade discussion of *principles* of social organization.¹

The Commission then outlines its proposed course for the junior high school as follows:

SEVENTH GRADE

- (1) Geographic bases of (physical environment with relation to) United States development.

¹ *Social Studies in Secondary Schools*, pages 49-52.

- (2) Social science survey (types of social organization).
 - (a) Simple industry and simple society.
 - (b) The transforming effects of scientific knowledge.
- (3) Other studies, correlated so far as may be practicable with the social study material.

EIGHTH GRADE

- (1) The opening of the world to the use of man.
- (2) Vocational survey, the individual's place in our social organization (presented in functional terms so that it may contribute to an understanding of *our* type of social organization).
- (3) Other studies, correlated so far as may be practicable with the social study material.

NINTH GRADE

- (1) The history of the United States (presented with "citizenship material" occupying the center of attention).
- (2) Principles of social organization (economic, political, social).
- (3) Other studies, correlated so far as may be practicable with the social study material.
- (4) A general survey of business administration, elective.¹

Respecting the faulty organization of the material actually offered in the schools, Dr. H. O. Rugg, with whom the present writer heartily agrees, says:

Are the reading materials of history, civics, and geography full enough in historical background so that children can live over the experiences which are demanded for a real understanding of the important features of present life? . . . A careful analysis of our textbooks leaves no room for doubt as to the answer to our inquiry. *Textbooks do not furnish enough detail* to give students a real depth of feeling and comprehension for the matters under consideration. . . . Social science textbooks are veritable encyclopedias. . . . They are reference books. They devote half a page to this and ten lines to that. . . . What is needed in place of the brief and isolated paragraphs we now give children to read is *a wealth of anecdote, narration, and description about a few worth-while matters*.²

¹ *Op. cit.*, page 53.

² Twenty-second Yearbook (1923) of the National Society for the Study of Education, Part II, pages 16-17.

How some of the schools are meeting their problems in respect to the social sciences and citizenship may be seen from the following quotations taken from recent courses of study.

The authorities in Berkeley, California, express themselves thus :

In the previous grades, the method of teaching is designed primarily to cultivate a love for history and to foster the habit of reading. Stories of great men and great deeds arouse the child's ambition and help to create ideals. The method of teaching in the seventh, eighth, and ninth grades should aim to strengthen this interest, build upon it, and use it to train the pupil to a more systematic pursuit of knowledge. He should learn how to study, that is, to read intelligently and to form conclusions—to formulate ideas, not merely to memorize words. He should learn to solve simple problems and so form the habit of meeting social and political problems fairly, and of analyzing them, as every citizen should be able to do.

A well-kept notebook may be made to contribute much toward establishing habits of neatness, order, and straight thinking. Since clear thinking depends largely on ability to visualize, the teacher should encourage the use of every available means, such as outlines, maps, diagrams, models, pictures, dramatization, etc. In this formative period, much can be done also to establish habits of accuracy and thoroughness.

The fundamental purpose in these grades is not so much to impart information as to cultivate high ideals, to develop right habits of thought and of study, to inculcate a sense of civic responsibility, and to furnish a perspective from which the pupil may see the history of his own nation as merely a part of the history of the human race. Nevertheless, certain important facts that are necessary to this perspective, as well as the fundamental facts of American History, should be learned thoroughly.¹

Belleville, Illinois, gives advice to its teachers in this wise :

In geography, the best results can be obtained only when the child realizes that what he is working on is of use to him. The boy will be interested in geography and will work hard to master it when

¹ Course of Study for Intermediate Schools, pages 29 *et seq.*, 1917-1918.

he feels that it helps him daily to understand things. Be sure to bring up daily and to locate on maps the places that are mentioned in the newspapers of the previous day. This habit once formed will amply repay the children for the effort expended. They will thereby easily learn the location of many places in two years, and it will also aid greatly in vitalizing the work.

Much of the history found in our textbooks never functions in the lives of our citizens. There are entirely too many unimportant events briefly and disconnectedly outlined. What we need is to emphasize the important events, making them big and rich in content and connected up with American life of today, so that they will function in good citizenship. This is the history that will interest the pupil and consequently remain with him to aid him as voter and citizen to reach the right conclusions on the many questions of politics and government that are constantly confronting him.

In discussing battles in the wars we have engaged in, it matters little when or where the engagements occurred, or who the generals were, or how many men were engaged. Throw the emphasis on the spirit or state of mind or the cause for which they were fighting, and finally on the effects of the battle on the troops, on the home people, and on our antagonists.

The primary aim of this course (community civics) is to arouse in the pupils of the school an interest in, and a knowledge of, the duties they and all the rest of us owe our city, state, and nation. The accomplishment of this high ideal will require genuine patriotic and community-loving spirit on the part of the teacher, and a wise handling of the pupils and the material. If we can get the children to feel that they can be of vital use in the betterment of the community and the welfare of the state and nation, we have struck a responsive chord in them which will greatly aid in our task. Here are a few ways in which they can be of great aid:

By obeying the law in regard to non-molestation of property; by respecting the sacredness of the rights of others; by holding city ordinances inviolable; by keeping clean morally, physically, and spiritually; by enjoying life, but avoiding cruelty and over-indulgence; by attending school regularly; by agitating and taking part in all community work that is for its good or that of our country.

The schoolroom work can be greatly enriched and made interesting by class, group, and individual visitation and inquiry at the various city, county, and state offices; such as that of Health, Water, City

Engineering, Garbage, Street, Overseer of the Poor, Market and Weightmaster, Superintendent of Highways, County Superintendent of Schools, Public Library, Fire, Police, County Clerk, City Clerk, Treasurers, Mayor, Sheriff, State's Attorney, Recorder of Deeds, Custodian of the St. Clair County Historical Museum, and all of the courts, from the lowest to the highest ; also the Board of Supervisors, the different civic clubs, and public-spirited citizens.

The result of these visits and investigations can be further vitalized by organizing the class for the time being into a city council, electric light company, a hospital board, or any other organization to suit the needs of the studies just previously made.

Interest is further aroused by taking up in class daily, for 5 or 10 minutes, the current events pertaining to public welfare, not only of our own community, but that of the State and of the nation.¹

At the Ben Blewett Junior High School, St. Louis, Missouri, social study is, to quote Professor R. L. Lyman,

. . . the primary subject required continuously throughout the entire course for five periods a week. Moreover, art, music, and certain other allotment subjects, even English itself, the only other continuous five-hour subject, are in Blewett considered as directly contributing to the social training which is thus prominent in the curriculum and is in marked evidence in all of the social activities of the school. A visitor is struck by the frequency with which there appear in many classrooms discussions of group obligations, democratic duties, and social responsibilities of the school life itself.

Social studies in the seventh grade correlate history and geography and consist of four series of ten projects each, one project weekly per quarter, under four major problems : (1) First quarter : the origin of American History as found in the civilization around the Mediterranean before 1500 A.D. . . . (2) Second quarter : struggle for freedom and empire from 1492 to 1620. . . . (3) Third quarter : world affairs between 1620 and 1763 as influenced by the desire for political and economic freedom, for wealth and economic independence, and for commercial and political empire. (4) Fourth quarter : the war of American independence, its causes and beginnings, its relation to the sea power of England, and its importance as one of the great events of history.

¹ Course of Study, 1920, pages 100 *et seq.*

Social science in the eighth grade proceeds purely upon the topical basis in American history as a story and interpretation of our democracy, quite openly discarding chronological sequence, . . . The ninth grade organizes its community civics in the first half year on the basis of Dunn's *Community Life*, and its second half-year course in the vocations on the background of Gowan and Wheatly's *Occupations*.¹

How Massachusetts is proceeding in the subject of citizenship is revealed in the following account given by F. M. Davenport :

Both boys and girls in Massachusetts are beginning to be guided toward a broader and more useful community citizenship. At Chatham in groups together they hunt and destroy the larvæ of the brown-tailed moth. At Dorchester the teacher, as judge of a circuit court, conducts his pupils through all the naturalization proceedings, and when the time of the final oath of citizenship comes they stand up and take it together while the teacher-judge reads from Hale's *Man Without a Country* or from President Wilson's speech to the new Americans in Philadelphia. Dorchester is through with teaching citizenship from a textbook and of having it written back to the instructor. Government is objectified. When the senior class elects its officers, it is done in a regulation polling-booth under the system of the preferential ballot. . . .

In Massachusetts some of the most successful teachers are trying to make the school-city a model for the municipality. The pupils under such instructors elect their own mayor and common council at the time when the city's mayor and common council are elected. They follow with ordinance and discussion the policies and activities of the city government. There are very few important factors of the real city's life with which these community experimenters do not become in a measure practically acquainted. "There goes fifty cents of my money," said one boy to another as the fire-engine swept by the window. It is the serious, practical side of the duty of citizenship which is brought home to them. And when the time is ripe for it, these native New England scions and the offspring of the foreign stock together take the young Athenian's oath :

"We will never bring disgrace to this our city by any act of dishonesty or cowardice or ever desert our suffering comrades in the ranks. We will fight unceasingly to quicken a public sense of civic duty. We will revere and obey the city's laws, and do our best to incite a like respect and reverence in those about us who are prone to annul them or set them at naught. Thus in all these ways we will transmit this our city, not only not less, but greater, better, and more beautiful than it was transmitted to us."¹

¹ In *The Outlook*, pages 60 *et seq.*, 1917.

CHAPTER TWELVE

MATHEMATICS

JUST what place mathematics is to hold in the standardized junior high school is a question of surmise. Just what form it will assume is a matter of still greater speculation. Notwithstanding the attacks of enemies, the subject has as yet held a rather firm hold, and is doubtless destined so to do for all time to come. As Professor David Eugene Smith says :

It is related positively to almost every branch of human activity, whether chiefly mental or chiefly manual, and, even considered on the lowest educational level, it is bound to maintain a position of importance. With arithmetic intimately related to every commercial and industrial interest; with the algebraic formula in every type of industrial manual, even in books in domestic science; with geometric forms and measurements required in every walk in life; and with the slide rule in the pockets of thousands of artisans, mathematics will hold its place without any regard to the mental discipline which it was recently the fashion to proclaim as forever laid to rest.¹

“Now,” continues Professor Smith, “if mathematics is to be taught in grades seven, eight, and nine, what shall be its nature?”

Answering his own query, Professor Smith says :

In the first place, it seems certain that a goodly amount of arithmetic must always be offered. . . . Since intuitional and constructive geometry is more concrete than algebra, it seems evident that this should find place in grade seven, with such algebraic formulas as are needed in its study. Since an elementary type of algebra is today necessary even in ordinary reading, this may properly be emphasized in grade eight, and since the door of real mathematical thinking should be open to every boy and girl . . . the work of grade nine may properly include a half year of formal

¹ Smith, David Eugene. “Mathematics in the Junior High School,” *Educational Review*, page 392, April, 1917.

algebra followed by a half year of formal geometry, or else a whole year of algebra as at present.¹

Professor Smith further believes that the bases of arithmetic in the seventh grade should be "occupational rather than logical" and should progressively consider the arithmetic of the home, the store, the farm, industry, the bank, and so on. The geometry of the seventh grade should consist of "intuitive geometry of shape (including constructions), of size, and of position." In the eighth grade, algebra, geometry, and arithmetic should support and interpret each other.

In greater detail, the National Committee on Mathematical Requirements, in its preliminary report (1919), expressed similar conclusions. It said, in part:

Stated by topics rather than years, the mathematics of the junior high school may properly be expected to include the following:

(A) Arithmetic

- (a) The fundamental operations
- (b) Tables of weights and measures in general practical use
- (c) Emphasis on simple fractions: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{2}{3}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{1}{5}$, $\frac{1}{8}$
- (d) Facility and accuracy in the four fundamental operations
- (e) Very simple short cuts in multiplication and division
- (f) Percentage
- (g) Line, bar, and circle graphs
- (h) Arithmetic of the home: household accounts, thrift, simple bookkeeping, methods of sending money, parcel post
 Arithmetic of the community: property and personal insurance
 Arithmetic of banking: savings accounts, checking accounts, foreign money

(B) Intuitive Geometry

- (a) The direct measurement of distances and angles by means of a linear scale and protractor

¹ *Ibid.*, page 393.

- (b) Indirect measurement by means of drawings to scale; uses of square-ruled paper
- (c) Areas of the square, rectangle, parallelogram, etc.
- (d) Practice in numerical computation
- (e) Simple geometric constructions with ruler and compasses, T-square and triangle, such as perpendicular, bisector, angle bisector, parallel lines, etc.
- (f) Familiarity with such forms as the equilateral triangle, the 30-60 right triangle, and the isosceles right triangle
- (g) Geometry of appreciation: geometrical forms in nature, architecture, manufacture, and industry

(C) Algebra

Topics to be included :

- (a) The formula — its construction, meaning and use
- (b) Graphs and graphic representations in general — their construction and interpretation
- (c) Positive and negative numbers — their meaning and use
- (d) The equation — its use in solving problems
- (e) Algebraic technique
 - (1) The fundamental operations
 - (2) Factoring
 - (3) Fractions
 - (4) Exponents and radicals
- (f) Optional topics
 - (1) Logarithms and the slide rule may be taken up with some classes

(D) Numerical Trigonometry

- (a) Definition of sine, cosine, and tangent
- (b) Their elementary properties as functions
- (c) Their use in solving problems involving right triangles
- (d) The use of tables of these functions (three or four places)

Demonstration of a limited number of propositions, with no attempt to limit the number of fundamental assumptions, the sole purpose being to show to the pupil what “demonstration” means.¹

¹ Junior High School Mathematics, Secondary School Circular No. 6, Bureau of Education Publication, July, 1920.

The Committee then offered the five plans given below as suggestive of the ways in which the work might be distributed, but recommended none as superior to the others.

Plan A

First year : Applications of arithmetic, particularly in such lines as relate to the home, to industry, to thrift, and to the various school subjects ; intuitive geometry

Second year : Algebra ; applied arithmetic, particularly in such lines as relate to the commercial, industrial, and social needs of our country

Third year : Algebra, trigonometry, demonstrative geometry

By this plan the demonstrative geometry is introduced in the third year and arithmetic is practically completed in the second year.

Plan B

First year : Applied arithmetic (as in Plan A) ; intuitive geometry

Second year : Algebra, intuitive geometry, trigonometry

Third year : Applied arithmetic, algebra, trigonometry, demonstrative geometry

By this plan trigonometry is taken up in two years, and the arithmetic is transferred from the second year to the third year.

Plan C

First year : Applied arithmetic (as in Plan A) ; intuitive geometry ; algebra

Second year : Algebra ; intuitive geometry

Third year : Trigonometry ; demonstrative geometry ; applied arithmetic

By this plan algebra is confined chiefly to the first two years.

Plan D

First year : Applied arithmetic (as in Plan A) ; intuitive geometry

Second year : Intuitive geometry ; algebra

Third year : Algebra ; trigonometry ; applied arithmetic

By this plan demonstrative geometry is omitted entirely.

Plan E

First year: Intuitive geometry; simple formulas; elementary principles of statistics; arithmetic (as in Plan A)

Second year: Intuitive geometry; algebra

Third year: Intuitive geometry; numerical trigonometry; arithmetic

By this plan the work of the first two and one half years may be described as general mathematics, while the last half year would be devoted to the special civic and economic features of business practice.

That undue stress has been placed, in the past, upon arithmetic in the seventh and eighth grades is today rarely denied by even the most enthusiastic defenders of mathematics as a school subject. That the simpler processes of algebra and the less complex portions of geometry can readily be comprehended by the typical boy or girl of the seventh and eighth grades is a contention which experiment is everywhere proving valid. That, on the other hand, the more formal aspects of algebra should constitute a prescribed course for all pupils in the ninth grade is, to a large extent, being denied by practical educators. Hence a revised plan of mathematical instruction is almost everywhere being sought to take the place of the traditional course of arithmetic in the seventh and eighth grades.

For some time now, leaders among mathematicians have been advocating a course in general or introductory mathematics for the junior high school. Conspicuous among these reformers is E. R. Breslich of the School of Education, University of Chicago. In an article in the *School Review* for May, 1920, Mr. Breslich expresses himself relative to the problem in this wise:

Assuming that our interpretation of the junior high school period is correct, and that this is a period of experience-getting, this experience should extend over the whole field of elementary mathematics, arithmetic, algebra, geometry, and even trigonometry.

These subjects are not to be taught separately, at least not during the first two years. What is wanted is a wide experience with the mathematical concepts which the pupil builds into a growing structure. All of these subjects contain simple facts which can easily be mastered by the twelve-year-old pupil. Geometry is experience-getting in space relations; algebra, in abstract quantity relations. Experience gained in either should be used whenever it can be made helpful in the study of the other. When mathematics is taught essentially as one subject, it is possible to keep the important principles as far as possible under review, thus increasing the power of retention. Algebra is not to be taught as an organized science and the "sacred sequence" of Euclid in geometry will have to be abandoned.

Algebra taught as an organized science is to a pupil of this age nothing but a mechanical juggling of symbols, a wearisome iteration of meaningless manipulation, a waste of his time which stunts his intellectual growth. . . . [But] giving a pupil wide experiences with these fundamentals [of all mathematics] will make possible a gradual and easy approach to the parts of the subject that are later taught in the high school.

Such material should be selected as proves its worth by actual service in the life of the pupil and such facts should be included as the pupil needs in his other studies. The material is to be arranged as far as possible in psychological order. New terms are to be learned through use and as need for them arises and the work progresses.

At present there is a relatively excessive amount of time given to arithmetic, which contains much that is unessential or fundamentally beyond the pupils' experience. Such topics as stocks and bonds, exchange, compound interest, partial payment are things that are foreign to the pupil at this age and are seldom touched upon in future courses. They may well be transferred to the upper classes of the high school, where they should be made elective for those who are interested in commercial work.

We have said that the junior high school period is a time of experience-getting. Hence the arithmetic studied should relate to things of real interest to the pupil. It should be subsidiary to larger occupational interests. It should be arithmetic of the store, the farm, and industry. It should deal with matters of the home, such as planning family expense accounts on a certain income, saving to buy a lot on an installment plan, incomes from boys' activities.

The algebra of the junior high school should be the outcome of concrete problems. The formulas should be related to real things. Formulas taken from the shop, the trade journals, engineering pocket books can be made interesting. Formulas may be used to show the advantage of the algebraic method over the arithmetical method in problems of percentage, discount, and interest. The equation, which is the core of the course, is a tool for problem-solving. There is to be no symbol juggling. The rules, principles, and processes are rationalized. The operations are a means for solving equations and are introduced as needed.

Geometry will furnish an abundance of concrete material. It should be used freely to make clear abstract algebraic principles which otherwise remain hazy. Many theorems, such as the theorem of Pythagoras, are essentially numerical relations. They furnish formulas for algebraic solution and lend themselves easily to algebraic treatment.

Graphical representation is to be used freely. To avoid an unnecessary accumulation of difficulties, positive and negative numbers are to be studied after the operations with positive literal numbers have been mastered. Much unnecessary material should be omitted.¹

Experience seems to be bearing out Mr. Breslich's main convictions.

The recently issued outlines of the State Department of Public Instruction of Pennsylvania recommend a course in general mathematics for all junior high schools and explain the recommendation thus:

General mathematics reveals the branches of higher mathematics in their simpler aspects and at the same time provides a background of experience in determining aptitude for higher mathematics and an apperceptive basis for the later cross-sections of mathematics. General mathematics includes a gradually decreasing amount of arithmetic, decreasing from maximum to minimum, and a gradually increasing amount of secondary mathematics, increasing from minimum to maximum. General mathematics is a reorganized self-contained course of study, but, as a resultant, it preserves articulation with elementary and secondary mathematics. Thus

¹ Breslich, E. R., *Junior High School Mathematics*, pages 368 *et seq.*

it prevents abruptness of transition with the courses of mathematics in either the elementary school or the senior high school. It provides an opportunity to evaluate aptitude for higher mathematics; it becomes the source of an apperceptive basis for all branches of secondary mathematics; and by preserving life contacts in all phases of its development it offers an actual educational return to the junior high school drop-outs who will not profit from either its exploratory or its preview values.

Despite the advice of educational leaders, many schools in different parts of the country are not following, unmodified, the suggestions. Some have adopted the plan of a general mathematics course only to abandon it. Others have begun algebra and geometry in the seventh and eighth grades and have been dissatisfied with the result. It seems clear that much of the trouble experienced with the newer theories is due to faulty methods of organizing and giving instruction in the several courses. The following statement taken from a personal letter written by Superintendent J. W. Sexton of Lansing, Michigan, February 27, 1922, gives the views of a practical administrator. Mr. Sexton says:

We are now operating on a tentative course of study which runs as follows in mathematics:

7th year — Elements of algebra throughout the year.

8th year — Inventional and constructional geometry throughout the year.

9th year — Arithmetic throughout the year with special emphasis on the commercial side. The other phases of arithmetic have been covered in the previous years' work.

One of the great difficulties that people are having with junior high school work is that they think of it in terms of high school credit. Seventh-grade algebra is not the same as the old ninth-grade algebra used to be. The children are two years younger. They have had two years less of arithmetic and are not able to do what we used to consider under the old régime a year's work.

What is true of seventh-grade algebra is true of seventh-grade Latin and all the other subjects. Cæsar or tenth-grade Latin has been impossible for many children. If by studying Latin three years, — seventh, eighth, and ninth grades in junior high school, — the pupils come to the tenth-grade prepared to do Cæsar with some degree of ease, pleasure, and fluency, I think the time will be well spent. It is Latin we are after and not credit.

We placed algebra in the seventh grade for two reasons: first, the simple elements of algebra are easier than the kind of arithmetic formerly given in the seventh and eighth grades; second, the children have had formal arithmetic for about four years, so we thought a new branch of mathematics would be more interesting to them than to continue the study of arithmetic. We do no demonstrating in the geometry of the eighth grade. This makes rather a new subject for the pupils in the eighth grade. Having had these two years of work, we think they are now ready to do a good thorough year's work in arithmetic, so we have placed arithmetic in the ninth grade.

How certain other representative schools are meeting the mathematics question may be seen from a consideration of various syllabi and outlines of courses.

The following excerpt indicates what are the practices in the junior high schools of Rochester, New York:

Arithmetic is continued throughout the year (eighth grade) largely in its relation to the new subjects, geometry and algebra. The first half of the year provides for the consideration, in a thoroughly concrete and simple setting, of the fundamental facts of plane geometry by means of a study of straight lines, angles, triangles, polygons, and circles. This study is followed by the introduction of the ideas of equality, of symmetry, congruence, and similarity. Such simple ideas and principles of solid geometry as are desirable in giving the preparation for algebra and for a subsequent study of pure or applied mathematics are also introduced as a part of this course. The students are also given some opportunity to gain skill in the use of geometrical instruments; and, by means of ample use of concrete materials in the schoolroom, on the street, and at their homes, they are constantly led to see the relation

of things all about them to the study of geometry and to desire reasons for geometrical processes.

The second half of the eighth year is devoted to the study of algebra. As geometry was developed much earlier, historically, than algebra, it has seemed wise to use it as a means of furnishing background for the latter study. Under this plan, algebra is regarded as a short method of symbolizing numerical relations and processes; and, in order to give meaning to symbols before the actual study of algebra is attempted, geometry has been selected as furnishing an easy field for this application of algebraic symbols. While this is by no means the only field of such application, it has proved a most natural one under the present arrangement. The subject matter for this semester includes only so much of algebra as can be readily assimilated and easily applied in the concrete manner suggested above. The equation occurs early in the course and is supplemented by numerous simple problems. The entire plan provides for the introduction of algebraic symbols in a much more simple and concrete manner than is ordinarily attempted, thus leading naturally to the fundamental definitions, processes, and principles of the new subject.¹

The following is the outline of the mathematics course in the Ben Blewett Junior High School, St. Louis, Missouri:

GENERAL STATEMENT OF COURSE OF STUDY IN MATHEMATICS OF JUNIOR HIGH SCHOOL

SEVENTH GRADE

We use the Standardized Tests to diagnose the children's mathematical skill in the fundamental processes on entering, and again from time to time to study their progress.

Short daily drills are given on the fundamental processes and on short methods and aliquot parts.

The solution of problems of everyday life such as personal accounts and bills. Just enough arithmetic of the farm to enable the child to understand something of the importance of the industry on which he is so dependent.

Problems of industry and the bank. All of this work is taught with the idea of enabling the child to understand (i.e., interpret)

¹ Course of Study for Junior High Schools, Rochester, New York, 1919.

the world in which he lives, and to understand the quantitative side of that world; not for the sake of solving so many examples in order to obtain correct answers. Stress is placed on rationalization of problems, not on habituation.

The three methods of solution of problems — namely, the table, the equation, and the graph — are taught. The children are taught to use the graph solution wherever it is possible, and in the most convenient form, either bar, circular, or line graph.

They are taught the use of arithmetical signs to enable them to express problems in the equational form, and to solve them.

The formula is taught in connection with interest problems and with the simple geometry of space as taught at the end of this grade.

Some constructive geometry (or geometry of form) is given. Then geometry of location, and finally geometry of size or mensuration. Here we make use of the formula and the equation, which pave the way so well for algebra.

Every possible effort is made to vitalize the work by making it deal with the problems of the child's everyday life.

EIGHTH GRADE

Arithmetic of transportation and travel. Familiarize pupil with money order, foreign money, express rates, postage, etc.

Arithmetic of the bank. Interest and simple discount, savings and checking accounts. Writing of checks and notes.

Mensuration, application of square root. Right triangle. Stocks and bonds. Corporations: no drill work on this subject.

A study of stocks and bonds with the idea of giving pupils a knowledge of their functions, their necessity in business, and their value as investments.

A study of market reports, etc.

In all work, stress formula and equation.

Algebra: formulas, simple equations, fundamental processes with integers and negative numbers.

Commercial class in eighth grade follow same course, stressing banking and commercial problems. If necessary, omit mensuration.

NINTH GRADE

The approach to algebra has already been made in the eighth grade; therefore the pupil is more or less familiar with simple equations of the first degree, formula, graph, etc.

The ninth grade work carries the pupil through equations of one and two unknowns, simple, fractional, and quadratic equations. Enough factoring is given to handle the equations successfully. Some work in fractions is given to enable the pupil to handle the equation and the formula.

An attempt is made to broaden the work of the ninth grade mathematics by introducing concrete applications, such as logarithms, solution of right triangle by tangent of the angle, drawing to scale, etc.

The work of the ninth grade is not designed to find a direct application in the business world, but to develop mathematical concepts, and to give at the same time enough skill as a preparation for later courses in mathematics.

SHOP MATHEMATICS OF THE NINTH GRADE

This course is now being developed, and it is not yet clear just what it is going to be. The basic idea is to put the pupil into contact with such situations in the shop — or situations of a technical nature — as are within his comprehension, that are quantitative in character, and to enable him to meet these situations. The problem that confronts the shop foreman, for instance, so to select the pulleys transmitting the power to a lathe that the material in his lathe may be cut at the most advantageous speed, is a type of this situation. In general, most of the mathematics in connection with the lathe is possible. Such geometrical considerations as are necessary for the solution of these problems or for the understanding of the “why” of such geometrical constructions as he meets in his mechanical drawing will be taken up. Also as much algebra as is necessary to understand and manipulate formulas given in shop manuals intended for the use of the foreman or the workman of the better type — in short, for men whose training along technical lines is practical rather than theoretical. The trigonometry of the right triangle will be necessary for this purpose, but practically no formal geometry. In algebra, the following will be necessary: ordinary substitution in order to evaluate formulas; the four fundamental processes with monomials; integral and fractional equations of the first degree — in general with monomial denominations only; such knowledge of fractions as is necessary for the solution of equation mentioned above; a working knowledge of logarithms in connection with the solution of right triangles is also desirable. Deci-

mal fractions are to be reviewed, as well as the conversion of common fractions to decimals.

Time will show what may with advantage be omitted from, or added to this tentative outline.¹

The following is, in part, the outline of a proposed course in mathematics for junior high school, prepared by a committee of teachers in Kansas City, Kansas :

The course of study here presented is offered as a working basis toward the development of a socialized mathematical program which will meet the needs of the boys and girls of the junior high school. . . .

In the first year, business procedures of the home, school, and community which develop the arithmetic facts related to percentage and its applications — profit, loss, commercial discount, commission, taxes, and interest — comprise the main part of the year's work. These business procedures are grouped under the topics of informational problems, and thrift and economy in budget-making, buying and selling, savings, and paying debts. This is followed by work in mensuration with respect to such linear measurements, areas, and volumes as are common to the child's experiences. Special emphasis is placed upon banking. The eighth or second year's work is a continuation of the study of business practices in situations which involve more judgment on the part of the child. The situations are grouped under the topics of credit, protection, city expenses, and investments. Besides reviewing previously learned arithmetic facts, this develops facts related to debit and credit, bank discount, drafts, insurance, taxes, stocks, bonds, building and loan. After this, many of the mathematical facts are reviewed by means of tables, graphs, formulas, and algebraic equations at the same time that the arithmetic facts related to square root, ratio, and proportion are developed. Unified mathematics in the last year acquaints the child with geometric facts, simple algebraic equations of one or more unknowns, and quadratic equations. Throughout the course there are such reviews and drills as are essential for efficiency. Information concerning the origin, the history, and the why of business transactions enriches the course. . . .

Such subjects as have no utility in common life will be omitted or postponed until the senior high school. The arithmetic topics

¹ Circular of information issued by Principal P. W. L. Cox.

which have been omitted from this course are those which educators and business men have recognized as serving no practical end in everyday life. Some of these omitted topics are essential to certain vocations, but a senior high school education is a requirement of those vocations. It is best to give to all those things that all need, and put those things that only a few need in the course that the few will follow.

. . . Buying and selling at a profit or loss, at a discount, or on a commission, savings, and paying debts touch the lives of all the children as do the measuring of parallelograms, triangles, circles, prisms, and cylinders. It is because of this that these topics are placed in the first year of the course. . . .

The home, school, and community supply the material for this course. The children collect data and information which are utilized in the classroom. The children also collect the problems which members of their families have had to solve during a certain period of time. Factory payrolls, marked-down sales, advertisements, cook books, general hardware, merchandise, and furniture catalogs, and interests of the community are searched for material. Other departments furnish problem data and problems which arise in their courses. The teacher, through reading and interviews with city officials and business men, makes herself thoroughly acquainted with the information which the course gives and supplements that which the child brings in. The problems do not use the same objects repeatedly. The material is presented in settings that are in harmony with existing conditions. The problems have a counterpart in real life. . . .

In concluding this chapter, it is fitting to refer to the mathematics course of the Lincoln School of Teachers College, Columbia University. This school is perhaps the most notable experimental school of teaching methods that the country has. Speaking of the work in mathematics provided therein, Dr. Raleigh Schorling writes thus in the bulletin of the school :

The history of mathematics shows that the science developed in a very simple and natural way. Man lived a happier and a richer life when he had learned to measure and to count. In all ages quantitative thinking and expression have been interwoven with

human experience. The power to think in terms of space and number has not ceased to be important; indeed, it appears to become more necessary as life grows more complex.

In somewhat the same simple way that the race developed the early aspects of the science the pupil may be given a meaningful insight on an experiential basis. The simple principles are best learned in situations where the need for them is felt, and the more complex principles, where greater economy and power are demanded.

. . . It is our aim to acquaint the pupils with numerous concrete situations requiring that some element of the material world be quantitatively analyzed and manipulated.

. . . As far as concerns mathematics, what facts should the well-informed man know? What specific mathematical abilities need to be developed? What powers of appreciation need to be cultivated? In short, what is the minimum amount of information and training that society may well expect of high school graduates? The work which we are now giving to our Junior High School grades represents the beginning of a course which purposes to answer these questions. We have probably only scratched the surface of the possibilities. Our achievements are not the measures of our desires to improve the mathematics situation.

It may be observed that this introductory course involves a departure from customary mathematical aims and results. As they are usually formulated, the pupil is confidently expected to gain from mathematics unusual power, possibly even in remote fields, as, for example, preaching a good sermon, manipulating the bond market, or winning a legal battle. So long as teachers of mathematics accept this vague promise, an "apartment house" fraction or a complicated factoring problem, which no one has occasion to know, not even in the study of higher mathematics, constitutes valid subject matter. Faith in the peculiar disciplinary powers of mathematics caused instruction in this subject in America to be characterized by formalism. In algebra this formalism led to undue emphasis on the manipulation of symbolism, whereas in geometry it took the form of forcing philosophic criticism upon immature minds.

In current practice valuable time is wasted on non-essentials to the exclusion of worthwhile material. In general, the pupils are not happy in mathematics courses, in spite of the fact that number relations constitute one of the fundamental interests of the human

mind. Parents resent the large number of failures and well they may, for it is my understanding — certainly my experience — that the pupil who cannot learn mathematics, properly organized and presented, and who, at the same time does not lie very low on the curve of general intelligence, is an individual so scarce as to be difficult to find. Teachers of college freshmen, too, are dissatisfied. They marvel that incoming students can sometimes do the problems involving the manipulation of symbols with greater facility than their instructors, in spite of the little understanding of the simple fundamental principles of the subject.

While mathematics may not be the worst offender in this matter of formalism, it nevertheless furnished an excellent illustration of the need of the particular kind of reorganization which brought the Lincoln School into existence.¹

¹ Bulletin: Illustrated Mathematical Talks by Pupils of the Lincoln School of Teachers College, pages 5 and 6.

CHAPTER THIRTEEN

NATURAL SCIENCE

NATURAL science as a subject of study in the junior high school has recently received enthusiastic support. There are two reasons for this support. One is practical and social; the other is pedagogical. The first is founded upon a clear recognition of the fact that tens of thousands of pupils are closing their school careers at the age of fourteen, fifteen, or sixteen, without entering high school at all. For them, the wonders of science will never be revealed — and this, in the most remarkable scientific era that the world has ever known and at a time when, in countless ways, science is entering into the daily life of every individual.

The second reason for the recent recognition of the importance of science in the junior high school curriculum is the generally accepted judgment of psychology and pedagogy (1) that the beginning courses in any subject should concern themselves with the large fundamental aspects of the whole field of related ideas rather than with detailed specialized portions of the subject; (2) that the approach to a new field is best made through an inductive study of familiar, simple topics rather than by means of a deductive, abstract treatment of principles; and (3) that the early years of adolescence are the appropriate ones in which to begin the systematic study of nature and of natural laws.

These considerations have led to the advocacy of a course in general science for the junior high school. The questions, however, that still remain unanswered are: When shall the course begin? What shall be the length of it? How many periods per week shall be devoted to it? What shall be its content?

In seeking answers to these various questions, one encounters much confusion of thought. But notwithstanding conflicting views, order is emerging from the confusion. In a recent bulletin,¹ the Commission on the Reorganization of Secondary Education recommends that a course designated *General Science, including hygiene*, be offered in the "seventh or eighth year, five periods a week; or both years with three periods a week each year," and that, in the ninth year, a course dealing with *Biological Science, including hygiene* be offered, such a course to consist of "general biology, botany, or zoölogy."

Continuing, this report, speaking of general science in particular, says:

The subject matter of general science should be selected to a large extent from the environment. It will therefore vary greatly in different communities. The science involved in normal human activities, and especially the science involved in the reconstruction period after the war, presents many real problems which must be met more intelligently than formerly if there is to be the needed increase in effectiveness of the service which individuals and groups are expected to give. Science is universal and constant in the life of our citizens, and hence to be useful to all pupils general science must accept the science of common things as its legitimate field. The science of common use and that of the classroom should be the same. General science should use any phase of any special science which is pertinent in the citizen's interpretation of a worth-while problem.

The particular units of study should be those that truly interest the pupils. Interest not only secures productive attention but is an evidence of attention. To be substantial educationally, interest must rest upon a sense of value, an evident worthwhileness in the topics considered.

No topic should be selected which is meager in content or lacking in significant problems. The range of material which can be used is in reality limited only by the capacity, experiences, and needs of

¹ Reorganization of Science in Secondary Schools, Bulletin No. 26, page 23, Bureau of Education, 1920.

the pupils. The materials should be concrete and capable of leading to many avenues of new and untried experiences. . . .

The foregoing discussion of selection and organization suggests the point of view in presentation. Topics should be large units. At the outset the topic should be viewed briefly as a whole, for the sake of perspective. Such a general view gives a concrete and significant basis to which there should be constant return and to which further and more detailed and more exact studies should be constantly related.

A combination of class presentations of out-of-school experiences, of individual laboratory work, and of teacher-and-pupil demonstrations is desirable. Simple materials should constitute most of the laboratory apparatus. The desk demonstration by teacher or pupils is excellent as a means of presenting an experiment for observation and discussion so that the attention of all may be definitely directed to the question in mind. Pupil demonstrations and individual laboratory work also should be used, since they give individual opportunity to handle apparatus and opportunities for active participation by each pupil. There is no objection to the same problem being solved by the whole class as individuals or as groups, provided that the class as a whole feels the importance of the work; but care must be taken when assigning the task to all to see that the work does not become meaningless for some. Sixty-minute laboratory periods are generally better than longer periods for introductory science courses. An abundance of textbook and other reading matter should be available.

No text in general science can or should supply answers to all inquiries. The textbook should be used as a reading and reference book, and other sources for reading should be extensively used, such as magazine articles which deal with current use of science. References should be specific for children of the age of general science pupils, since they will gladly do much reading if they know just what to read.

Bulletins of available current reading matter prepared by teachers and pupils are an aid in reference work, and are stimulating to teacher and pupil.

Excursions, well directed and with a purposeful plan, are of great value. Excursions should always be definitely planned, carried out as serious exercises, and the results used in later work. Pupils and teacher should look upon excursions as a regular part of the serious work of the course.

The Commission on the Reorganization of Science, in treating of the place of biology in the ninth grade, calls particular attention to the weaknesses inherent in the typical course of former years. Among these weaknesses were the over-specialized training of teachers, the over-formal nature of the laboratory work, and the selection of topics that appeal "to the adult mind rather than to the mind of the adolescent." "The material used was often remote from the everyday experience of the student, and biological studies . . . failed to function. . . . When teachers began to present biology in its relation to human welfare, a new and vital interest in the subject was awakened." The Commission then sets forth the aims of the biology course as follows :

Biological sciences, in common with the other sciences in secondary schools, should contribute to the educational objectives stated on page 12 — health, worthy home membership, vocation, citizenship, the worthy use of leisure, and ethical character. In particular, biological sciences should have the following specific aims :

- (1) The World War has emphasized health as a basic end of education. Since much of biology deals directly with problems of health, the course in biology must accept efficient health instruction as one of its chief and specific ends.
- (2) The biological sciences should develop the pupil's purposeful interest in the life of the environment by giving a first-hand acquaintance with plant and animal neighbors.
- (3) They should emphasize some of the most important applications of biological science to human activities and to general and individual human welfare, and especially should familiarize the pupil with the structure and functions of his own body, to the end that he may know why he must live healthfully in order to live happily and usefully.
- (4) They should train the pupil to observe life phenomena accurately and to form logical conclusions through the solution of problems and through projects essential to the productive work of agriculture, gardening, etc.
- (5) They should enrich the life of the pupil through the æsthetic

appeal of plants and animals studied, to the end that he may appreciate and enjoy nature.

- (6) They should demonstrate to the pupil the value of intensive study of biological science as a means through which scientific progress is attained. In view of what science has meant to our present-day civilization and in view of the measure in which the methods and results of scientific investigation are today reflected in intelligent thought and intelligent action, the need of the life sciences in the education of modern citizens cannot be ignored.

As to the content of a general biology course, the Report says :

The Committee believes that a course in biology in the ninth or tenth year should be what the name implies — a study of living things. The central ideas should be :

- (1) The way in which each organism maintains its own life and the life of the species.
- (2) The interrelations between different organisms and groups of organisms.
- (3) The constant dependence and interrelations of living things with the physical world about them.
- (4) The power of man to control the habits and relationships of plants and animals to serve his own ends.

The Report then offers specific suggestions relative to the content and concludes its outline thus :

The culmination of this study should be an increased interest in personal hygiene and sanitation. A good opportunity is open to biology teachers who have the right point of view in giving much help regarding the biology of sex. . . . This important subject should not be presented to high school pupils from its pathological aspects. . . . The whole success of the movement depends on well-trained, sympathetic teachers well endowed with common sense. Important, however, as is the teaching of the facts and the hygiene of reproduction, a knowledge of these alone does not insure boys and girls against bad practices. . . . To the knowledge of what is right must be added the will to do the right. Hence, the Committee believes that all physiological instruction relative to

sex should be supplemented and strengthened by sane appeals to the ethical and religious nature of boys and girls.

What place does physiology occupy in the scheme of things? While it is true that many schools still provide course instruction in physiology in the seventh and eighth grades, it is obvious from an examination of the literature pertaining to the junior high school that physiology as a separate and distinct subject is not receiving the attention in those grades that it formerly did. Not that its values are diminished or less clearly recognized, but that the simpler portions of the subject can adequately be treated in the grades below those of the junior high school, that the practical facts of the subject can best be taught in connection with courses in physical education and biology, and that the more complex topics of structure, form, and function rightfully belong to more advanced courses than those which can be legitimately provided for in the junior high school. Certainly a valid criticism directed against much of the teaching of physiology in the past has been its verbalism and formalism. If, as seems probable, a rearrangement of the work will minimize this fault and make the instruction vital for boys and girls, nothing will be lost and much will be gained.

There seems to be good reason for advocating a study of nature even before the systematic course in general science is begun. Ex-President Eliot of Harvard University has for years preached the need for more sense training. So have others. Nevertheless, only occasionally in the schools is any well-organized plan for training of this description to be found. A fully reorganized plan for giving instruction relating to nature and nature's processes will include definite allotments for work throughout all of the elementary grades. Systematizing and summarizing the information gained from such studies and connecting such information with

the instruction in general science, a course in the natural history of animals and plants in the first half of the seventh grade would seem to have much merit.

The writer recalls with satisfaction the avidity with which he as a boy pored over the pages of Buffon's *Natural History*, and the lasting impressions that were made upon him. The life stories of animals, birds, fishes, reptiles, and insects have great interest for most boys and girls. To read accounts of the life habits and antics of these dumb friends and enemies, and to supplement the readings with photographs, stereopticon and motion pictures, exhibitions of real specimens, and actual visits to menageries, conservatories, aquariums, and parks will contribute much to the interest in science and the power to discover and interpret Nature's laws.

A plan of this kind would, if put into effect, give a curriculum scheme of the following order :

Grade 1-6. Nature Study

Grade 7B. Natural History

Grade 7A-8A. General Science, with Hygiene

Grade 9. General Biology

That the views of many other individuals respecting general science courses are in close agreement with what has been suggested above may be seen from the following excerpts.

First, a part of the report made by a committee of the High School Masters Club of Massachusetts in 1917:

The committee feels that the work in general science is of great importance and is worthy of the best thought of those responsible for the details of the courses in this subject in the junior high school. Despite the great advance that has been made in the general science courses as given in the past in the high schools of the country, much constructive work yet needs to be done. The work has been criticized as a hodge-podge which ill deserves the name of science. Too often the training or personal interest of

the teacher, or of the writer of the textbook, has led to an undue emphasis on some special field of science. The course in general science ought to concern itself with an orderly and rational study of the pupils' environment. In this study the principles of the physical sciences are of primary importance because these principles are fundamental to all sciences. The pupil ought to study the phenomena of everyday life, that he may understand them and apply the principles involved to new experiences. Such a study will bring a real gain in power, and with even fair skill on the part of the teacher can hardly fail to arouse genuine interest. In order to avoid misunderstanding, the committee would make it clear that it is not recommending simply a course of diluted physics and chemistry, but a new subject — the study of environment in its scientific aspects. The necessary limitations of this report make it impossible to enter into details, but two fields of great human interest which have hitherto generally been neglected in courses in general science may well receive some attention. Some of the important facts of meteorology are well within the grasp of pupils of junior high school age, and the phenomena of weather are not only of perennial interest to the average citizen but the underlying principles of these phenomena are closely connected with other matters which always receive attention in courses in general science. Probably no other part of our environment lends itself more readily to the project method of study. The other suggestion is that some attention be given to the study of microorganisms. These have come to figure so largely in modern life that we cannot afford to ignore them entirely even in an elementary course.

Second, from an article by Miss Alice Jean Patterson on "Methods of Science Teaching in the Junior High School":

There is a choice between two rather distinct modes of attack. One is the organized-science method, the other is the nature-study method. The former needs little explanation. It is the method that has been employed for years in the teaching of the special science in high schools and colleges. The subject matter is grouped around fundamental principles and laws. The pupils are started at once along a path of well-organized material which usually progresses step by step from the simple to the complex. The nature-study method deals directly with unorganized material. It means hand-to-hand contact with objects and phenomena in the environ-

ment of the children. The material is studied in its natural setting, that is, the laboratory includes not alone a room equipped for that purpose, but the out of doors as well as various processes found in the home, the school, the shop, the factory, and the street. It means that the children observe, and question, investigate and interpret, experiment and undertake definite projects in the solution of their problems.

Plant study means making the acquaintance of individual plants found in the community. These may be cultivated plants of garden, field, and orchard, or uncultivated ones of the woods and roadsides. Entire plants are observed. Their habits of growth are studied, special characteristics are discovered. Problems that arise with the observation or the project are, when possible, answered by further investigation or by experiment. If the plants are cultivated ones their values to the community and to the outside world is studied, as well as the history of their amelioration and the part they have played in the advancement of human society.

If the plants studied are uncultivated ones, weeds, for example, the pupils go to the gardens and fields of the neighborhood or their own garden plots for their material. They study the habits of growth of these pests, work out the life cycle, note methods of seed distribution and other special characteristics that enable the plants to withstand hard conditions. To aid in identification and to fix characteristics, specimens are collected, mounted, and preserved for future use. Projects to determine methods of combating are undertaken.

Animal life is taken up in a similar manner. Insects encountered in the garden, field, or home are observed, their relation to plants and to each other noted, their life histories worked out, their habits of feeding, of passing the winter, investigated, and their economic relation to the community studied.

The same fundamental principles are employed in the study of physical and chemical phenomena. To illustrate: the study of heat and heating is not begun in the laboratory by experiments and a discussion of facts gathered from the textbook, but with the problem of how the schoolroom and the homes are heated. The work begins with an investigation of the heat supply of the room, air currents are found, and traced step by step to their source, the furnace, the steam plant, or the stove. The motive for investigation is strong because the pupils are dealing with a bit of daily life;

the problems are of intense interest because they are the pupils' own.¹

How the work in science is actually being carried forward in the schools can be seen from the following outlines taken from the syllabi or courses of study of several more or less typical school systems.

MENOMINEE, MICHIGAN

Physiology (seventh grade). Looking upon the human body from the physical point of view as the most perfect, most ingeniously economical, and most beautiful of living machines, this course gives practical instruction in the running of this human machine. A study of personal, home, school, and community hygiene is emphasized.

Science (eighth-grade boys). General Science is a brief study of accepted facts and principles found in everyday life. It includes a brief course in the subjects of chemistry, physics, and physiology, with a number of simple laboratory experiments. Special emphasis is laid on problems that interest boys especially.

Science (eighth-grade girls). An introduction to science applicable to the daily lives of these girls. Such subjects are taught as household chemistry, the selection of paints, varnishes, and oils for actual daily use, the examination of fuels and their adaptability to furnaces and kitchen range; the investigation of school and home lighting, and their influence upon eyesight; the utilization of simple labor-saving devices to relieve physical exertion; and the application of hygienic facts and theories to school, home, and community sanitation.

Science (ninth grade). The science course, which is the continuation of the eighth-grade course, deals with the large and concrete things which surround boys and girls and in which they are materially interested. The scientific analysis of home problems is emphasized.²

¹ *School and Home Education*, pages 221-222, April, 1917.

² Course of Study, Menominee, Michigan, pages 10-11, 1920.

MONMOUTH, ILLINOIS

General Science

Introductory. An increasing interest as to what science shall be taught in the junior high school has developed with the progress and success of the junior high school. A course in general science is rapidly becoming the first course of the science sequence. It is intended for immature minds. It includes the whole broad territory of the physical universe. The natural sciences are not included as a collection of sciences, but the course is so organized that the pupil, while dealing with some known facts, will be continuously relating them to phenomena about him which are of vital interest to him and which stimulate the mind and supply it with the elementary materials of thought. The laws and principles of the physical sciences are of primary importance in dealing with home and school environment.

Aims. The fundamental aim for the teaching of general science is to awaken an intelligent interest in the natural environment of the pupil to the end that he may, to some extent, correctly interpret that environment and be master of it. The wonderful phenomena of nature must be made of vital interest to the pupils. Every opportunity should be embraced to stimulate their self-activity and to induce them to use the knowledge acquired. If a child is to reach maturity with a proper insight into physical laws, forces, products, utilities, and inventive appliances, he must begin early to observe closely and accurately and to feed the spirit of inquisitiveness and investigation. It thus becomes a part of his life and character. The work is intended to stimulate the pupils to use science in their constructive work and to lead them to be independent as they develop in powers of observation and interpretation.

Method. The main question is how to get the problems of science before children in such a way as to bring them to the best exercise of their own independent powers in solving them. Each object in nature raises a question. Urge pupils to ask questions about everything they see of which they desire an explanation. Such procedure will suggest many problems for study. The purpose of such instruction is more than to get the facts and principles into the mind of the child. Do not tell him how a telephone works. Get him to working with a telephone, pulleys, etc., testing out advantages by working with them. Get the child to reach his own conclusion,

answer his own questions ; he may not reach the correct conclusion the first time, but use other experiments to illustrate. A general conclusion may spring from an observation and comparison of a number of different experiments of the same class. The pupils should construct many of the simpler toys and home appliances used in science lessons, such as the kite, windmill, pump, siphon, lever, musical instrument, balloon, etc. Simple home-made apparatus is better than elaborate equipment.

Scope

- 7 B and 7 A { Geography. Three days per week, 120 minutes.
 { Physiology. Two days per week, 80 minutes.
8 B and 8 A. General Science. Four days per week, 160 minutes.¹

RADFORD STATE NORMAL SCHOOL

The Radford State Normal School, East Radford, Virginia, which prepares teachers for the rural junior high schools, outlines its work in general science and biology as follows :

General Science

We train teachers for teaching general science in the rural schools. The class taught is in our training school. There are usually twenty or thirty pupils, all girls. The class has kept the weather record for the school, made a survey of the town and vicinity in order to study the peculiar topography of the New River valley, wired the Administration Building for electric bells, made and used fireless cookers, thermos boxes, barometers, iceless refrigerators, and other devices. They have explored the caves of the vicinity and made field trips to all the manufacturing plants of the city.

We have taught by means of topics. Each student is asked to make a talk before the class upon some topic which she has worked up from the field trips and the library. Often they write to the departments at Washington for material, bulletins, etc. A large topic is accepted in lieu of the examination. The student is allowed to use the school apparatus, lantern, or any outside material she is

¹ *Time Allotment and Outlines of Work*, Monmouth, Illinois, pages 6 at seq., 1920.

able to secure to illustrate her topic. The teacher helps with suggestions and bibliography. The students are eighth grade.

Biology

This work is given in the ninth grade. We are preparing teachers to work in the rural junior high schools of Virginia.

The class as a whole took the project this year to rid our campus of flies. Groups of the class were responsible for the stables, pigpens, kitchen, dining room, the spaces under the windows of the dormitory, and one group made a survey of the neighborhood and tactfully enlisted the coöperation of the neighbors. Other small problems: An aquarium stocked from streams; the birds on the campus; each group studied the activities of a tree from September to June; cockroaches in the pantry.¹

ST. LOUIS, MISSOURI

The Ben Blewett Junior High School of St. Louis handles the general science work in the following manner:

General Science

The aim of this department is to build a sound foundation course for the seventh year which shall serve to give the pupils glimpses of the interesting fields that science explores. Interest in the world about them rather than amount of information being the vital consideration, pupils are brought into contact with many different phases of elementary science. Conspicuous here also is the primary feature in all seventh-grade work in Blewett Junior High, namely, the exploring of pupils' interests, aptitudes, and abilities. General science in this grade aims to open up to them the larger scientific fields that lie beyond, to the end that wise educational guidance and pre-vocational choices may be made in higher grades. Topics discussed are as follows:

September

- (1) Landscape appreciation
- (2) Tree study: identifying the common trees; mapping school grounds

¹ Circular letter, Radford State Normal School, East Radford, Virginia, Science Department.

- (3) Bird study : permanent residents near school ; migrating birds
- (4) General observation visit to the zoo
- (5) The best food for children, milk
- (6) Insect study : grasshopper and sphinx

November

- (1) Landscape appreciation : a November landscape
- (2) Tree study : winter aspect of common trees
- (3) Bird study : protective coloration ; winter care of birds
- (4) Visit to the zoo : planned carefully for study of one animal
- (5) Bulbs : why planted in fall ; why they bloom so early
- (6) Animal study : goldfish and squirrel

February

- (1) Landscape appreciation : winter landscape
- (2) Tree study : report on trees in home block ; survey trees of a district
- (3) Bird study : watching return of early spring birds
- (4) Visit to the bird cage in the zoo : planned lesson for observation
- (5) Bag worm
- (6) House fly : studied with microscope
- (7) Tree products : lumber and lumber industry

April

- (1) Landscape appreciation : April landscape ; identification of common plants
- (2) Tree study : complete survey of district ; structure ; enemies ; etc.
- (3) Bird study : bird homes ; temporary residents
- (4) School and home gardens : soil testing ; seeding, germination, etc.
- (5) Animal study : earthworm ; moths ; butterflies ; bumblebee ; etc.
- (6) Food : when to eat fats, sweets, meats
- (7) How to eat : digestive organs ; teeth

Topics for appropriate seasons ; suggestive of phases developed.

- (1) The work rivers can do
- (2) Springs : underground water ; caves

- (3) Volcanoes: geysers
- (4) Influence of climate on food supply
- (5) Balloons: weight of air; pressure; siphon; air pump; hydrogen gas
- (6) Fire prevention: cause of fires; how controlled; oxygen and carbon dioxid
- (7) The wind
- (8) The dew: condensation; dew point; rain
- (9) Granitoid wells: spaces; expansion of solids; liquids; gases; artificial ice; thermometer
- (10) The compass
- (11) Lightning rod
- (12) Ice-cream freezer and thermos bottle
- (13) Properties of oxygen: carbon dioxid, hydrogen (*review*)
- (14) Mosquito: how it sings: travels, echoes¹

ROCHESTER, NEW YORK

Rochester offers the general science course in the eighth and ninth grades. The following is the outline of the work given in the Course of Study, 1920, the eighth-grade work alone being reproduced here.

The general aim in the science work is:

- (1) To develop the student's power of observation so that he may be aware of his surroundings in a way that will enrich his experience.
- (2) To give the students an understanding of the common phenomena of their immediate environment.
- (3) To provide opportunity for practice in applying what has been learned to the solution of new problems.
- (4) To correct misinterpretations of natural phenomena.
- (5) To give students some idea of scientific methods of procedure in dealing with problems of a scientific nature.

The topics for study are arranged in groups and the information and training obtained by the study of any group is made to play a definite part in the study of succeeding groups. The arrangement of groups is somewhat determined by seasonal changes. The

¹ Lyman, R. L., in *School Review*, Vol. 28, No. 2, pages 99-100, February, 1920.

arrangement of topics within a group is either psychological or logical as the particular case demands. Throughout all courses the home, street, school, and city environment, as contributing to the physical, mental, and moral development of the student, is made the keynote of the science study.

EIGHTH B OR EIGHTH A GRADE

Fall Term

(I) Personal hygiene (personal hygiene is accented in all grades throughout the year)

- (1) Kinds of soap and how they are made
- (2) How soap cleanses
- (3) Use of soap in the laundry — removal of stains
- (4) Substitutes for soap
- (5) Soap and a clean skin — a clean skin and health
- (6) Tooth pastes and powders — hygiene of the teeth and mouth

(II) Community sanitation

- (1) Garbage disposal
 - (a) Receptacles for garbage — kind and care
 - (b) Prevention of flies and odors
 - (c) Collection of garbage — methods and efficiency
 - (d) Methods of garbage disposal — saving fats
 - (e) Rochester plan
- (2) Sewage disposal
 - (a) Sanitary plumbing — care and use
 - (b) City sewers
 - (c) Rochester plan
 - (d) Other plans

(III) The heavens

- (1) The earth and her moon
- (2) Location of places on the earth's surface by means of latitude and longitude
- (3) Motions of the earth and their effects
- (4) Meaning of time on the earth
- (5) Our sun and his family of planets
- (6) The stars and the constellations
- (7) Archimedes, Galileo, and Newton

(IV) Observational work

- (1) Winter birds — housing and feeding
- (2) Frost and its effect on the soil
- (3) Study of a special tree or shrub
- (4) Wind velocity as well as wind direction
- (5) Continue observations of outdoor air temperature
- (6) Planets and designated constellations
- (7) Seeds and seed dispersal
- (8) Grasshoppers
- (9) Examples of conservation as applied to :
 - (a) Foods
 - (b) Crops
 - (c) Birds, etc.

*Spring Term***(I) The weather**

- (1) Sayings about the weather
- (2) Weather factors
 - (a) Temperature — thermometer and its use
 - (b) Winds — direction, velocity, cause
 - (c) Air pressure — how measured ; relation to storms
 - (d) Humidity and health
 - (e) Precipitation — clouds, rain, snow, dew, frost
- (3) Climate in relation to crops, industries, and health
- (4) Weather predictions
 - (a) Pupil's prediction based upon personal observation of weather factors
 - (b) U. S. Weather Bureau predictions — how obtained ; value

(II) Water

- (1) Properties, impurities, and uses of water
- (2) The local water supply
 - (a) The lake sources — altitude, drainage areas, sanitary control
 - (b) Distributing conduits
 - (c) The city storage reservoirs
 - (d) Boiling water to make it pure
 - (e) Water in the home — faucets, water pipes, traps, meters

- (3) Purification methods of other cities
- (4) Vacation dangers in drinking water
- (5) Chemically pure water — distillation
- (6) Process of distillation applied to gasoline, benzene, kerosene, lubricating oils, and alcohol

(III) Gardening

- (1) Preparation of the soil
- (2) Planning the garden
- (3) Planting the seeds
- (4) Weeding
- (5) Marketing

(IV) Observation work

- (1) Continue daily weather observations
- (2) Continue the work on bird life
- (3) Flies and mosquitoes — relation to health
- (4) Fire risks in relation to fire insurance
- (5) Continue the work on the study of common trees
- (6) Examples of conservation as applied to :
 - (a) Water supply
 - (b) Liquid fuels
 - (c) Other topics previously mentioned under this heading¹

LABORATORY EQUIPMENT

For some individuals the question of laboratory equipment is a matter of concern. In the West Virginia Course of Study, issued by the State Board of Education, 1921, the following pieces are recommended as the minimum necessary to carry on the outlined course in general science :

- One-half dozen assorted test tubes for each pupil
- Two hydrometer jars
- Four wide-mouth bottles for each pupil
- One gross assorted corks
- Two large jars with straight sides
- One good Fahrenheit thermometer
- One good Centigrade thermometer

¹ Course of Study, Rochester, New York, pages 107-112, 1920.

Two flasks for each pupil
Two dozen assorted rubber stoppers, with one and with two holes
Two pounds assorted glass tubing
One three-cornered file
One-half dozen assorted glass funnels
One support with assorted rings, and wire gauze
Six thistle tubes
One medium-sized bell-jar
Mercuric oxide
Zinc chips
Hydrochloric acid
White phosphorus
Sodium hydroxide
Potassium hydroxide
Common salt
Nitric acid
Sodium nitrate
Sulphuric acid
Vinegar
One pound mercury
Weather charts and maps
Trowel (one for each student)
Hand lens (one for each student)
Forceps (one for each student)
Dissecting needles (one for each student)

In conclusion, it may be said that the work in science in the junior high school is not intended to be unscientific in its methods. Quite the opposite. As the State Board of West Virginia puts it :

Unless the course increases the student's interest in scientific phenomena very considerably and also adds much information and knowledge concerning common scientific phenomena to his rather limited fund, it has missed the mark in so far as he is concerned.¹

¹ West Virginia State Board of Education, Course of Study, page 84, 1921.

CHAPTER FOURTEEN

PRACTICAL ARTS

THE leading purposes of the junior high school courses in Practical Arts are three in number :

- (1) To give to every boy and girl in the school some appreciation of the kinds and nature of the practical activities that go to make up the industrial and commercial world around them ; and particularly for the girls, to acquaint them with the ideals and practices which contribute to the making of attractive, hygienic, and well-managed homes.
- (2) To enable pupils, by means of try-out courses, to discover their interests, aptitudes, and ambitions with respect to certain vocations, and to give them training in the ordinary practical affairs of home, garage, garden, shop, and playground.
- (3) To give specific training in particular vocations to pupils who show special aptitudes for such vocations ; those who are unable to profit by other courses ; and those who, because of untoward circumstances, are unable to continue in school beyond the junior high school years.

Perhaps no better formulation of the general character of the work in practical arts has been made than the following, prepared by the Commission on the Reorganization of Secondary Education, and published in the bulletin, *Cardinal Principles of Secondary Education* :

In the education of every high-school girl, the household arts should have a prominent place because of their importance to the girl herself and to others whose welfare will be directly in her keeping. The attention now devoted to this phase of education is inadequate, and especially so for girls preparing for occupations not related to the household arts and for girls planning for higher institutions. The

majority of girls who enter wage-earning occupations directly from the high school remain in them for only a few years, after which homemaking becomes their lifelong occupation. For them the high-school period offers the only assured opportunity to prepare for that lifelong occupation, and it is during this period that they are most likely to form their ideals of life's duties and responsibilities. . . .

In the education of boys, some opportunity should be found to give them a basis for the intelligent appreciation of the value of the well-appointed home and of the labor and skill required to maintain such a home, to the end that they may cooperate more effectively. For instance, they should understand the essentials of food values, of sanitation, and of household budgets.

Vocational education should equip the individual to secure a livelihood for himself and those dependent on him, to serve society well through his vocation, to maintain the right relationships toward his fellow workers and society, and, as far as possible, to find in that vocation his own best development.

This ideal demands that the pupil explore his own capacities and aptitudes, and make a survey of the world's work, to the end that he may select his vocation wisely. Hence, an effective program of vocational guidance in the secondary school is essential.

Vocational education should aim to develop an appreciation of the significance of the vocation to the community, and a clear conception of right relations between the members of the chosen vocation, between different vocational groups, between employer and employee, and between producer and consumer. These aspects of vocational education, heretofore neglected, demand emphatic attention.

The extent to which the secondary school should offer training for a specific vocation depends upon the vocation, the facilities that the school can acquire, and the opportunity that the pupil may have to obtain such training later.¹

WHAT THE SUBJECT INCLUDES

Practical arts, for the junior high school, include manual training, drawing, horticulture, agriculture, commercial studies, cooking, sewing, millinery, and household management. Each one of these subjects is likewise subdivided according to its branches. There seem to be good reasons —

¹ U. S. Bureau of Education, Bulletin No. 35, pages 12-13, 1918.

social, intellectual, ethical, and æsthetical — for providing work of these kinds throughout each grade of the junior high school, and for prescribing it for all classes, especially during the seventh and eighth years. Concerning this matter, Professors Crawshaw and Selvidge say :

First, socially. In his daily environment the child sees and feels the great physical activity of the community. He is an imitative being; consequently he strives to copy the movements of his fellows, among whom are his elders. . . . The teaching of manual arts offers an opportunity for the school to give the individual this peculiar mental attainment which results from an intercommunication between members of a group. . . .

The school of the past has not fitted the child for the industrially practical things of life, because the fundamental industrial activities have not been given due consideration in school processes. It has dealt with the theoretical almost to the exclusion of the practical. The work which demands the use of the hands in skilled labor must be the means of livelihood for the major portion of the adult population. Such being the case, the school has an obligation to the community to give its pupils knowledge of a functioning sort. If, then, the shop and the drawing room, the kitchen and the laboratory, will serve to furnish children information which later on will give them a community standing, these instruments point the way toward desirable social and economic ends. Ideals in life are established in the manual arts work which cannot be conceived by the non-participant therein. We cannot fully appreciate the viewpoint of the worker in any walk in life until we ourselves are put in his place.

Second, ethically. By this term we mean to express that quality which leads one to discriminate between those things which emphasize the best in life and those which are commonplace or even bad. In recitation work it is not impossible for one to deceive his fellows and even himself as to the degree of his understanding of a subject. The recitation may be based upon a clear, an acquired, or a borrowed understanding. It may be the audible form of any one of these and yet in reality be either of the other two.

When, on the other hand, the recitation takes the form of a finished project worked out in some tangible material, there can be no mistake as to its representing just what the maker understands about his subject. The exact measure of his ability is shown in the finished



Photographs by courtesy of State Department of Public Instruction, Pennsylvania

Views of the "General Shop" of the Latimer Junior High School,
Pittsburgh, Pennsylvania.

product. It is good, bad, or indifferent, depending upon a clear, a poor, or a partial understanding of all the elements which enter into it. Thus ideals are established. . . .

Third, artistically. In the study of soft tones, pleasing colors, harmonious lines, and satisfying proportions, as well as in good construction, do the students of manual training become better able to appreciate the true meaning of artistic.¹

TRY-OUT COURSES

The plan of having the seventh-grade work made up of try-out courses seems highly desirable. To permit, for example, boys of this grade to spend ten weeks in woodworking, ten in machine shop, ten in forge or metal work, and ten in printing, is an arrangement that harmonizes with the ideals of the junior high school. To allow the girls to test their interests for ten-week terms in sewing, cooking, millinery, and household design is likewise defensible in theory. To permit both boys and girls in the seventh or the eighth grade to obtain an elementary knowledge of horticulture and floriculture, and to have a try-out experience with bookkeeping, typewriting, stenography, and other forms of commercial work is likewise desirable and feasible. Indeed, there seems to be no valid reason why pupils should not be permitted to elect some kind of pre-vocational work each term of each junior high school year. Such work possesses educational value. Furthermore, the opportunity to elect pre-vocational courses tends to hold some pupils in school who otherwise would withdraw as soon as occasion permitted. An opportunity of this kind will enable individual pupils to lay the foundation for specific vocational work while continuing to pursue, somewhat longer than otherwise would be possible, a cultural and liberal course.

¹ Crawshaw, F. D., and Selvidge, R. W., *The Teaching of Manual Arts*, pages 10 *et seq.*

SOCIAL AND CIVIC ASPECTS

But it is not alone for the sake of a future vocation that vocational work should be offered in the junior high school. The Commission on the Reorganization of a Secondary Education says :

It is only as a pupil sees his vocation in relation to his citizenship and his citizenship in the light of his vocation that he will be prepared for effective membership in an industrial democracy. Consequently, this Commission enters its protest against any and all plans, however well intended, which are in danger of divorcing vocation and social-civic education. It stands squarely for the infusion of vocation with the spirit of service and for the vitalization of culture by genuine contact with the world's work.¹

If vocational considerations are to be the sole or chief reasons for providing courses in practical arts, then it is illogical to prescribe any of this work — even try-out courses — for pupils whose future careers are definitely fixed in fields wherein actual manual training is not required. It is even illogical to prescribe practical arts for the pupil whose future is not determined; for, taking the country as a whole, relatively few boys who are pursuing elementary courses in woodwork, ironwork, or typesetting will ever make carpentry, smithing, or printing their life vocations. Neither will many of the girls who are pursuing household arts courses undertake employment as milliners, seamstresses, caterers, or horticulturists.

Except for the very few, practical arts courses are to be justified on other than vocational grounds. So far as manual training courses for boys are concerned, Professor Bobbitt has stated the case concisely, and, with the substitution of "household arts" for "manual training," his remarks apply equally well to girls. He says :

¹ *Cardinal Principles of Secondary Education*, page 16.

1. It (manual training) provides concrete experiences with the tools, materials, and processes employed in important economic fields. It gives the boys the alphabet of experience necessary for appreciating some of the labors of that complex economic world in which they must play their specialized parts.

2. It is preparation for the performance of many kinds of unspecialized activities about the house, furnace-room, garden, garage, motor car, etc. It is individually and socially economical for the individual himself to take care of a considerable number of miscellaneous mechanical labors rather than to turn them over to specialists. This diversity of experience is otherwise good for the individual in a number of ways. We cannot here enter into the arguments, but it appears that there is large justification, not well developed in our usual professional theory, for setting up a very considerable range of unspecialized abilities as educational objectives. These demand diversified experiences with tools, materials, and processes of kinds that the ordinary man currently meets with. It demands a program that is quite different in many respects from the conventional manual-training, mechanical-drawing program. The recent tendency in progressive high schools to introduce the assembling and disassembling of all sorts of familiar machines and contrivances, automobile adjustment and repair, furniture repair, short courses in many technical fields, as, for example, cement construction, sheet-metal work, painting and decorating, gardening, etc., appears to indicate a considerable recognition of these unspecialized objectives. It must be confessed, however, that for any such goals of effort the usual manual-training courses are in need of large readjustment.¹

TYPICAL COURSES OF STUDY

In conformity with the views of Professor Bobbitt, many junior high schools have lately reorganized their work in manual training. To show the kind of work that is offered in various schools, several typical courses of study in practical arts are given here.

¹ Bobbitt, F., "The Actual Objectives of the Present-Day High School," *School Review*, pages 256 *et seq.*, April, 1918.



Photograph by courtesy of Board of Education, Detroit

Woodworking class, Hutchins Intermediate School, Detroit, Michigan.



Photograph by courtesy of State Department of Public Instruction, Pennsylvania

Class in sewing and millinery, Latimer Junior High School,
Pittsburgh, Pennsylvania.

Monmouth, Illinois

Monmouth, Illinois, describes its work in manual training for the seventh and eighth grades as follows :

INDUSTRIAL ARTS

Seventh Grade

Time : 160 minutes per week

Work : 7 B — First Semester : Concrete

The purpose is to give the boys an introduction to the composition, manufacture, characteristics, uses, and handling of concrete. To connect with wood work, a few simple wooden tools are made; straight edge, wooden trowel, measuring box; a further correlation with wood work is made in the construction of forms for models, casts, foundations, etc. Projects consist of: flower pots, window boxes, bird baths, etc. The class also do small jobs of work needed about the schools and for patrons.

7 A — Second Semester : Electrical work

An elementary course, mostly of an experimental nature, supplemented with talks, demonstrations, outside readings, and class reports. No attempt is made to explain the deeper theories of electricity, but rather to teach the boys what electricity does. Shop drawing is correlated with the work. The projects for this work are: making magnets, batteries, electro-magnets; installing regular telegraph, telephone, and electric call bells and electric light systems; construction of motor, induction coil, etc.

Whenever electrical wiring needs to be done for the schools, the work is turned over to this class if it is within their abilities. Some good jobs have been done.

Eighth Grade

Time : 160 minutes per week

Work : 8 B — First Semester : Cabinet work and Joinery : Shop Sketching

This course aims to give practice in the more difficult types of joinery which yet are within the ability of an eighth-grade boy. Each problem involves the fitting together or joining of two or more members to form a completed project. Most of the

common joints are employed, including the half lap, rabbeted, bridge, matched, mortise and tenon, and doweled. It is thought that the multiple dovetail is too difficult; also fancy panelling. The finishes emphasized are stain, shellac, wax, oil, and paint. The pupils make a shop drawing of each project before undertaking its construction, thus correlating elementary drawing with their shop constructions.

In the shop there are listed over fifty projects from which the boys may choose. In addition to the problems regularly on file, the boys bring in a variety of practical problems of their own. Some bring furniture from home and repair it at the school shop. The boys also do a great deal of repair and new construction work for the schools; such as building bulletin boards, flower boxes, etc., and repairing seats and other equipment. Whenever a boy does not want to make anything for himself he is put on one of the school jobs. The boys pay for the cost of the material entering into any project which they are constructing for themselves.

8 A — Second Semester: Carpentry and Cabinet Work

The interest and the instruction in the course center around some real carpentry jobs which the class undertakes during the semester. These real jobs are in the form of contracts for building garages, sheds, small houses, repairing buildings, etc. The garage makes an ideal problem for such a class to start on. After a garage has been completed a small house may safely be undertaken. During the present semester the carpentry class is building a garage and adding a kitchen to a house. Cabinet work supplements the work in carpentry. It follows the usual line of projects, avoiding those either too difficult or too heavy to manage well in the shop.¹

Menominee, Michigan

The course of study for 1920-21 of the Menominee, Michigan, schools outlines the work in manual training as follows:

MANUAL TRAINING

Manual training is required of all boys five seventy-five-minute periods per week throughout the seventh, eighth, and ninth grades and is elective in the tenth, eleventh, and twelfth grades.

¹ *Time Allotments and Work*, pages 73-74, 1920.

In the seventh, eighth, and ninth grades a variety of short courses in fundamental industrial materials and processes are offered to assist the pupil in the choice of his future school course and vocation. The work offered in the several grades is as follows :

Grade Seven

Drawing — one-fourth year.

Perspective and working drawings from objects and black-board sketches ; practice in lettering, planning, designing, and decorative design of articles to be made in the shops.

Wood shop — one-fourth year.

Benchwork, care and use of tools commonly used in wood-working hand processes.

Elementary iron work — one-fourth year.

Experience with cold metal, teaching the elementary processes in bench metal work through making useful articles.

Printing — one-fourth year.

Experience with care and use of equipment, setting up from cases, composition, proof reading, correcting ; distributing type ; motivation of English composition.

Grade Eight

— Drawing one-fourth year.

Perspective, isometric, and working drawings of architectural parts ; planning projects to be made in shop classes ; projection and development of plain geometrical solids, geometrical construction.

Wood shop — one-fourth year.

Use and care of bench woodworking tools continued, applied joinery, elementary carpentry and cabinet making in soft wood followed by work with hard woods.

Electrical construction — one-fourth year.

To create interest and offer information in elementary science of magnetism and electricity, practical construction in bell and light wiring and simple apparatus.



Photograph by courtesy of State Department of Public Instruction, Pennsylvania
 Class in cooking at the Edison Junior High School, Harrisburg,
 Pennsylvania.



Photograph by courtesy of J. N. Churchill, Architect
 Class in cooking at the Henry R. Pattengill Junior High School,
 Lansing, Michigan.

Printing — one-fourth year.

Review work covered in seventh grade; take up imposition, locking small forms, platen press, job type, job composition, point system, cutting stock and book binding.

*Grade Nine***Drawing — fourteen weeks.**

Projection and development of truncated geometrical solids, solving auxiliary view, application to sheet metal, lines, lettering, conventions of machine drawing, inking, planning, designing, working drawings of shop projects.

Wood shop — eighteen weeks.

Wood turning — fundamental wood turning processes, application of same to projects. Cabinet making — applied joinery, assembling complete furniture projects, wood finishing.¹

Forging — six weeks.

Care of forge, method of heating and working mild steel, laying out on bench, follow common processes through simple welding.¹

Menominee describes its work for girls thus :

HOUSEHOLD ARTS

Grade Seven

Plain sewing — two-thirds of year.

Art work — one-third of year.

Consists of nature work, still life, figure drawing, color study, lettering design.

Grade Eight

Cookery — one year.

Study of simple foods. Menu planning, preparing, and serving.

Grade Nine

Elementary dressmaking — one-third year.

Teaches construction of simple outer garments.

Study of hygiene and care and repair of clothing.

¹ Menominee, Michigan, Course of Study, pages 16-17.

Textiles and laundry — one-third of year.

Develops good judgment in the selection and purchasing of clothing and creates an interest in the welfare of textile workers. Teaches the most efficient methods of doing laundry work.

Art work — one-third of year.

Includes design, color study, good lettering, and dress design.¹

Chicago

While Chicago has no definitely organized junior high schools, it offers, in sixty-seven elementary schools, handwork that corresponds in aim and content to the practical arts work commonly provided in the junior high school. The following report shows the nature and extent of the Chicago courses :

THE HANDWORKS TAUGHT IN THE SCHOOLS

Sixteen different handworks are found in sixty-seven schools organized on the Intensive Handwork plan. They are as follows :

Agriculture . . .	1 school	Electricity . . .	1 school
Art	1 "	Mechanical Drawing	15 schools
Basketry	1 "	Millinery	1 school
Canning	2 schools	Printing	30 schools
Cement	1 school	Science	9 "
Cobbling	2 schools	Sewing	67 "
Cooking	66 "	Sheetmetal	5 "
Designing	1 school	Woodwork	67 "

Sewing and woodwork are the only handworks obtaining in all the sixty-seven schools. One school has no cooking — doubtless owing to the lack of a kitchen. Printing comes next in popularity, being in thirty schools. Mechanical drawing is in fifteen schools and laboratory science in nine. Laboratory science is classed as a shop subject because of the fact that it can be taught to but a one-half division and also because of its close relationship to the handworks.

¹ *Op. cit.*, pages 19-20, 1920.

Outside of these six major handworks there is very sparse representation.¹

Los Angeles

Los Angeles, California, outlines its courses in Household Arts as follows :

HOME ECONOMICS

The underlying purpose of the course in home economics in the Los Angeles city schools is to create and develop individuality, efficiency, and self-dependence, giving the girl a better understanding of the duties of women as producers and consumers, and intensifying the interest in all matters pertaining to the home and the extension of its influence.

DOMESTIC ART

The aim of this work is to develop appreciation for the artistic and appropriate in dress and in the furnishing and decoration of the home, good judgment in the purchasing of materials, and technical skill in the planning and construction of garments. Emphasis is placed on simplicity, economy, and artistic line and color combination.

The work comprises a study of the textile fibers with relation to their growth and processes of manufacture into cloth, of the adulteration of fabrics, of the uses of different fabrics, of the planning and construction of garments, of the hygiene of clothing, of the care and repair of clothing ; also a consideration of the interior decoration of the home from the standpoint of art and economy.

The work is intended to meet the needs of three classes of students :

1. Those who wish it for their own use in the home.
2. Those who wish to make it a basis for advanced study in colleges or normal school.
3. Those who will use it as a means of earning a livelihood after leaving the high school.

DOMESTIC SCIENCE

A systematic study is made of the production and manufacture of food materials, their wholesomeness and digestibility, nutritive value and cost ; at the same time, training is given constantly in

¹ Chicago Schools, Bulletin No. 15, page 20, 1919.



Photograph by courtesy of Frank I. Cooper Corporation, Architects
 Combined lunchroom and domestic-science room, Junior High School,
 Longmeadow, Massachusetts.



Photograph by courtesy of Board of Education, Detroit
 Domestic-science department, Hutchins Intermediate School,
 Detroit, Michigan.

neatness, order, foresight, and personal responsibility. The students work individually and in groups; in this way independence is developed, and a spirit of mutual helpfulness is fostered. The subject is closely correlated with all the sciences.

The special aims are to teach: (a) the scientific principles underlying food preparation; (b) skill in manipulation of utensils and food materials; (c) attractive preparation and serving of simple meals; (d) scientific accuracy in measurements and work; (e) the essentials in the selection and purchase of all materials for the home.¹

Buffalo

In the schools of Buffalo, New York, shop work and household arts are outlined as follows:

SHOP WORK

The shop work should be more extensive in amount and far more diversified in content than at present. Instead of a narrow experience in the formal treatment of wood alone, opportunity should be provided for the practical handling of all the principal materials used in modern manufacture and construction.

The purposes of this broader use of the shops should be:

- (a) To utilize the constructive instincts in the development of mind and body.
- (b) To create an appreciation of constructive workmanship and the dignity of labor.
- (c) To assist in vitalizing the study of art, science, geography, arithmetic, history, and civics.
- (d) To provide a basis for the study of industrial occupations.
- (e) To assist the youth in the choice of vocation by testing his interest and ability in the industrial field.
- (f) To develop skill and knowledge that will be of special value in future vocational training for the industries.

HOUSEHOLD ARTS

The practical arts work for girls should be conducted in accordance with the same general principles that dominate the shop work for boys. Special emphasis, however, should be placed upon

¹ Los Angeles Course of Study, page 86, 1917-1918.

training in all the household arts with the particular view to their application and usefulness in the home. The usual courses should be expanded and supplemented to cover the general treatment of foods, clothing, and shelter, through extended use of the selection and buying of food and its preparation, cooking, serving, and care; the choosing and purchasing of clothing materials; the construction, care and repair of garments, hats, and other wearing apparel; home-planning, decorating and furnishing; housekeeping, household maintenance and repair; economical expenditure of money for personal and household needs; and the study of industry in relation to the home.¹

HOME ECONOMICS

Speaking of the course in home economics, the Sub-Committee of the Commission on the Reorganization of Secondary Education, reporting in Febrúary, 1921, made the following pronouncement:

The purpose of general home economics is to help secure and maintain the best type of home and family life as vital forces in American society. The best type of home is a place in which children may be protected, nurtured, and developed into men and women, sound of body, trained in mind, disciplined in character, and prepared to assume their rightful duties and responsibilities in a working world. A satisfactory home is, moreover, a place in which the worker may secure rest, refreshment, and recreation, and wherein he may be revitalized for his contact with the outside world.²

Continuing, the Committee stated the aims of the general home economics course in elementary and high schools to be as follows:

To prepare the pupils for helpful and worthy membership in their present homes. To accomplish this aim it is necessary to develop skill in the use of household materials, utensils, and machinery, to inculcate such personal habits and standards as to food, clothing, and surroundings as will insure good physical health; to train to thrift, economy, and business methods that the pupil may appreciate the

¹ *School Magazine*, Buffalo, New York, pages 15-16, 1920.

² Sub-Committee on Home Economics. Report (*unpublished*).

problems confronting the administrator of the family income; to apply to daily life the fundamental laws of beauty of color, line, and form; and to establish such standards of character as will result in consideration for the comfort and convenience of others and in willing service for the common good.

Surely this ideal comprehends much more than instruction in cooking and sewing and relates itself much more closely to the pupil's home life and home experiences than that of an older day.

The Committee above mentioned further recommends that the time allotment for the course in the seventh and eighth grades be "two double periods equaling about one hundred and eighty minutes; one single period, equaling about forty-five minutes for supervised study, recitation, etc.; study, practice, and observation at home, ninety minutes." This gives a total which is equivalent to one period of forty-five minutes a day for the five school days and ninety minutes for home activities relating to the school work.

The Committee outlines the three-year course in a series of (1) school projects; (2) home projects; and (3) topics for investigation, report, and discussion. The Committee further makes much use of the principle of correlation, advocating its employment continually.

The following is the general plan of the courses proposed:

Seventh Grade

First Quarter, Topic: The care of clothing; thrift in selecting and making. Correlated with geography, English, arithmetic, art, and general science.

Second and Third Quarters, Topic: Meal preparation and service, correlated with English, geography, arithmetic, hygiene, and general science.

Fourth Quarter, Topic: The choice and making of simple clothing. Correlated with arithmetic, bookkeeping, general science, art, and hygiene.

Eighth Grade

First and Second Quarters, Topic : Food preservation, marketing, food stuff, food accounts.

Third Quarter, Topic : Economy in the use of clothing. Study of costs.

Fourth Quarter, Topic : (1) Summer clothing, — its use and care. (2) Garments for infants, home nursing, and care of little children during summer.

Ninth Grade: survey course

First Quarter, Topic : Clothing studies in relation to healthful and economic living.

Second Quarter, Topic : Food studies in relation to healthful and economic living.

Third Quarter, Topic : The home and its care. Studies dealing with making the living place a healthful, attractive home, wherever it may be.

Fourth Quarter, Topic : Family and personal finances. Wise and thoughtful spending and saving.

COMMERCIAL TRAINING

That commercial studies deserve a place in the junior high school will scarcely be questioned. Not only do these subjects possess educational values which contribute to the ends of general culture, but they likewise, for many pupils, furnish the most suitable kind of pre-vocational and vocational training. As in the other types of practical arts work, here too good pedagogy will doubtless suggest that the beginning courses shall give to pupils a general view of the entire field, and that the later courses shall build on the knowledge thus gained. Again, the judgment of the Commission on the Reorganization of Secondary Education is important in this matter. The Sub-Committee on Business

Education in Secondary Schools, reporting in 1919, made the following recommendations :

The question has insistently been asked, when may commercial instruction properly begin? With the introduction of the junior high school, there has been the temptation to transfer to this school highly specialized instruction in shorthand, typewriting, and book-keeping. In other words, the aim has been to give a fairly complete technical training by the completion of the ninth or tenth school year. The committee regards this tendency as regrettable.

The committee believes that "try-out" commercial instruction of a general character may well be given in the seventh and eighth school years. Such a procedure has the double advantage of giving all the pupils some knowledge of commercial affairs, which knowledge will be of value to them no matter what line of work they may later enter upon; and, secondly, it gives the basis for an intelligent choice of school subjects. Any plan which requires pupils at the beginning of the seventh or the eighth school year to make a choice of future occupation that cannot later be easily changed must work great harm. At this time they have not had the experience, nor have they the knowledge, to choose wisely. If the choice be made by their parents it will, in many cases, be made from prejudice or whim, and will not be based in the pupil's natural abilities and inclinations, nor will the choice be made with full regard for the pupil's ultimate larger good.

It is further our opinion that the commercial education of the ninth school year may well be of a somewhat general character, such as giving training in the use of the typewriter, the teaching of the fundamentals of accounts, and such practical applications of general subjects as will serve at once as a foundation for later commercial instruction and be of practical use to those who must leave school at the end of the ninth year.¹

In discussing the commercial curriculum, the Committee very justly takes the position that a single, definite, and fixed curriculum for all schools is not wise, but that each community should work out its scheme, having due regard to "the time and opportunity which the pupil or pupils may give to the

¹ *Business Education in Secondary Schools*, Bulletin No. 55, page 23, 1919.

studies, their probable future life interests, and the obvious community needs." The Committee makes the following recommendations :

Eighth Year : First Lessons in Business

This course includes : business habits, record work, business forms, systems of filing, taking and executing orders, art of wrapping and shipping goods, messenger service, work of stock clerks, making change and preparing money for deposit, simple accounts and journal entries, and drill in penmanship.

Ninth Year : Elementary Bookkeeping and Typewriting

For this course, the following outline is used :

1. Journalizing.
2. Posting and taking a trial balance.
3. Making statements of profit and loss and of assets and liabilities.
4. Closing simple profit and loss accounts into the proprietor's or investment account by journal entries.
5. Filing business papers.
6. Fundamental ruling work in connection with ledger accounts, statements, etc.
7. Making out monthly statements of personal accounts.
8. Handling the various business forms in their relation to business transactions.
9. Cash, trade, and bank discounts and interest transactions.
10. Draft work during the last month of the year, but it should be of a simple character.
11. Use of the following books : Journal, sales book, invoice book or purchase book, cash book, check book, and ledger.¹

TYPICAL COURSES IN COMMERCIAL TRAINING

An outline of the commercial work given in two junior high schools follows :

Los Angeles

INTERMEDIATE SCHOOLS

B7. Bookkeeping 1

The study of bookkeeping as a whole, emphasizing it from the ledger account standpoint, then a study of journalizing as an in-

¹ *Op. cit.*, page 43.

intermediate step between the business transaction and the ledger account. The study of the theory and practice, and the routine of posting. The trial balance, how and why obtained.

A7. Bookkeeping 2

Financial statement, why and how made. The figuring of interest and discount by the sixty-day, or bankers' method. Continuation of work in first semester with practical application of interest and discount.

B8. Bookkeeping 3

The study of ordinary business forms and papers, and their use in connection with a simple set of wholesaling. The study of the theory of the cash book, its uses and form. Reviews and tests.¹

Menominee, Michigan

COMMERCIAL DEPARTMENT

Business Arithmetic — 7th Grade

Review of fundamental operations in whole numbers, fractions, and decimals; also practical problems of everyday life, especially business problems.

Elementary Bookkeeping — 8th Grade

Review of Business Arithmetic and practice in the keeping of simple sets of books such as are used by the ordinary business man.

Business English and Typewriting — 9th Grade

Business spelling, including the new words in business; penmanship; a knowledge of English as used in business and letter writing.

In typewriting, the pupils learn the correct method of writing and of caring for the machine.²

AGRICULTURE

Agriculture, listed here as one of the practical arts, will obviously find its leading place in rural junior high schools.

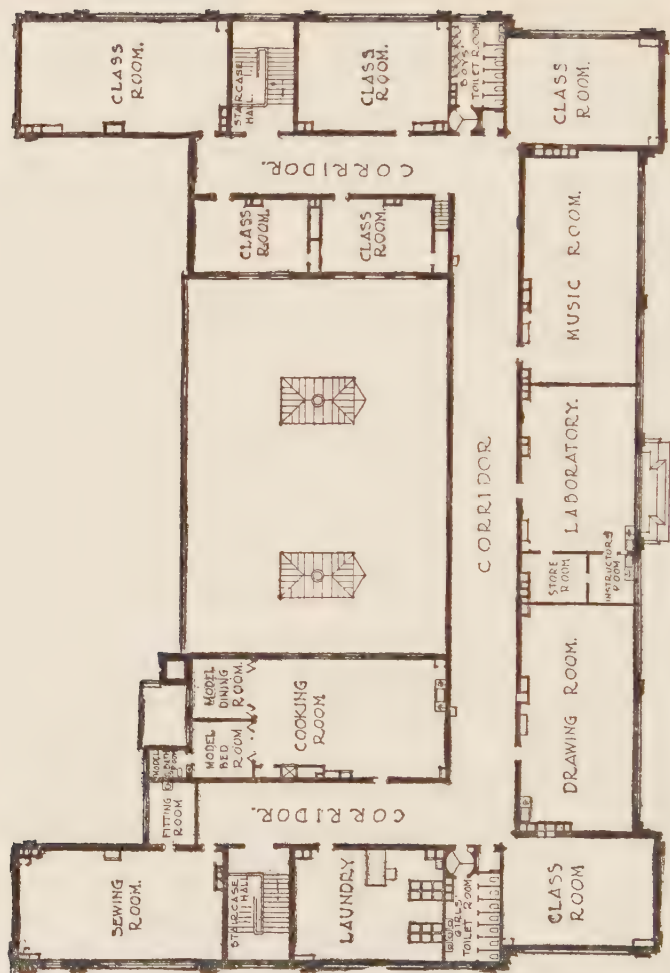
¹ Los Angeles, California, Course of Study, page 46, 1917-1918.

² Menominee, Michigan, Course of Study, 1920.

Nevertheless, general or introductory courses in the subject are appropriate for the schools in large municipalities. American national life is too dependent upon the farms and farm people ever to permit the development, among urban residents, of a spirit of indifference to the problems of rural communities. For the boys and girls reared in the city, a general course in agriculture should prove of real socializing value. When town and country come to understand better each other's problems and points of view, the tendency of each to undervalue and misinterpret the activities and interests of the other will decrease, and a finer economic, social, and political condition will result. On the other hand, for country boys and girls — particularly those who are likely to spend the greater portion of their adult life on farms — specific courses in agriculture are as important in pre-vocational or vocational education as are the manual arts courses for their city cousins. Indeed, for girls in rural sections, there is as much need for a practical arts course dealing with the home and adapted to country conditions as there is for a differentiation in the practical arts courses offered to boys in town and country.

In the junior high school, it is doubtful if any except the most elementary work in agriculture should be given. Certainly, however, a course that deals in an elementary way with farm animals, farm crops, soils, weeds, insects, dairying, poultry raising, and vegetable and flower gardening is appropriate to the seventh or eighth grade, in either city or country. Beyond this elementary course for rural schools, a course given in the ninth grade and including such items as the following has merit: physiology, hygiene, and farm sanitation; insect pests; plant diseases; animal husbandry; farm practice, farm mechanics, and project work.

For girls in rural schools, a course dealing with the care of the home and another dealing with floriculture, horticulture,



Temple and Burrows, Architects

Second-story plan, Junior High School, Davenport, Iowa.

and poultry raising seem especially needed. A sample of the first of these is presented in a bulletin of the Bureau of Education. The outline of the course is as follows:

(1) Arrangement and care of the kitchen; (2) care of cupboards and utensils; (3) care of food; (4) disposal of waste; (5) making soap; (6) setting the table; (7) waiting on table; (8) general cleaning of a room; (9) care of the bedroom; (10) care of lamps; (11) prevention of pests; (12) removing stains, bleaching fabrics, and setting colors; (13) washing dish towels, curtains, etc.; (14) ironing; (15) care of the baby; (16) cost of food, clothing, and house; (17) how to keep accounts; and (18) care of the exterior of the house.¹

The other two outlined courses given by Miss Lyford deal respectively with cooking and sewing.

Topics that might very properly be included in the suggested course in floriculture, horticulture, and poultry raising are: the purposes and values of the undertakings; the ordering of seed catalogues; the selection of seeds; the best arrangement of the garden; soils, fertilizer, and drainage of the garden; making a planting calendar; making and operating a hotbed; protection of plants from insects and disease; irrigating; harvesting and preserving the products. So far as the course relates to poultry raising the following topics may well be included: description of the breeds and varieties of poultry; the production, preservation, and marketing of eggs; the fattening and marketing of poultry; incubation and brooding; and the fall, winter, and summer care of poultry.

A TYPICAL COURSE IN AGRICULTURE

The following outline shows the manner in which agriculture is taught in the junior high schools of Los Angeles:

¹ Lyford, Carrie A., *Three Short Courses in Homemaking*, Bulletin No. 23, U. S. Bureau of Education, 1917.

INTRODUCTORY AGRICULTURE

B 8, A 8

This course is designed primarily for the students in the eighth grade, to familiarize them with the elements of agricultural practice.

The study of plant and animal life, their relation to each other and to man, will be carried on through the use of gardens, smaller domestic animals, laboratory exercises, and field excursions.

PLANT PROPAGATION

The object of this course is to familiarize the student with practical methods of propagation, and the production of vegetables, berries, and ornamental plants; to study the commercial value and industrial possibilities in their production; and to develop their appreciation of the use of plants for home and public ornamentation.

The course will include individual work in vegetable and ornamental gardening, propagation of flowers, shrubs, trees, vegetables, and berries, by methods best suited for each. This will be done in the gardens, glass-houses, lath-houses, cloth-houses, hotbeds, and cold frames. Also class work, reference reading and trips to parks, gardens, nurseries, and markets.

B 9, A 9

The course will extend through the year. Emphasis will be placed on the practical side and conducted to the best advantage, according to seasons.¹

A COURSE IN GENERAL MECHANICS

As showing the views of an educator of broad training and varied experience in junior high school vocational work, there are here presented several paragraphs written by Mr. Howard L. Briggs, Director of Industrial Work in the Arthur Hill Trade School, Saginaw, Michigan. Mr. Briggs says:

The junior high school is essentially a period of transition. The child's first vocational contact should therefore be based upon his past experience, his present needs, his immediate interests. Rarely has a child of thirteen years of age developed beyond the call of play

¹ Los Angeles, California, Course of Study, page 170, 1917-1918.



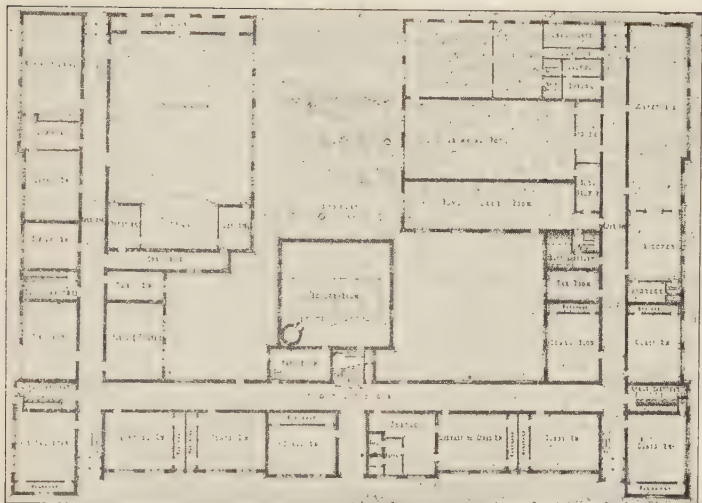
The Henry R. Pattengill Junior High School, Lansing, Michigan.
J. S. Chavira, Architect

incentive. His past vocational contacts have largely been built up about this instinct. We must therefore start his vocational experience in school through this medium. The child is living in an age of imitation . . . but it is also an age of fleeting interests. There is no desire to remain upon any one project very long. It is a period of review rather than of completion.

Our first year's work should therefore meet these requirements. I would call it a *transitional course*. Its work would be based upon the child's past experience in "fixing things" at home and would meet his present need for "helping" about the house. I would so present the work that I would appeal to the play instinct and the desire to "make things." I would offer a constantly changing series of experiences with new materials and under new conditions requiring but the minimum of time for the completion of each project. I would make all of these experiences have some practical application and gradually create the will "to do" and to accomplish, and through these first preliminary trade contacts lead him from the childhood incentive of play to a realization of his own potentialities as a producer, which I would develop in what I call an *overview course* in the eighth grade.

For this course we should devise a course of study offering a variety of experiences of short duration covering the elementary phases of typical occupations of the community. It is financially and physically impossible to cover the entire field in every community. We must therefore confine the teaching content to typical types of vocational endeavor and so arrange the experiences of the pupil that he will secure an overview of the entire field.

We should couple the above with a classroom course in vocational information, with actual visits to commercial shops, so that the pupil will have the opportunity to acquire an intelligent concept of his own limitations and possibilities in relation to the requirements and opportunities of the vocations of the community. In addition he should secure an appreciation of the life environment of the "other fellow." The artist, the doctor, the lawyer should have an understanding of productive industry, its conditions, problems, processes, its human side. The industrial worker, upon the other hand, should have an equally sympathetic understanding of the life work of the professional man. The overview course should develop a desire for information leading to a constantly expanding concept of materials, tools, manipulations, operations, principles, and possibilities of



(J. N. Churchill, Architect.)

First-floor plan of Henry R. Pattengill Junior High School,
Lansing, Michigan.

vocational activities. It should become a medium for vitalizing mathematics, civics, English, science, art, and all of the essentials of the academic curriculum. It should contribute to the vocational intelligence, the general experience, and the all-around development of the individual. It should assist the pupil in selecting and electing the general field of endeavor in which he will later specialize in the *pre-vocational try-out course* of the ninth grade. It should definitely aim to develop and to cause the individual to discover his own special capacities and aptitudes, his likes and dislikes. Physiologically and psychologically it is the time of times to merge and shape existing interests into intensive life purposes through definite concrete experiences.

The pre-vocational course of the ninth grade is essentially a try-out course. Through the pupil's experience in the seventh and eighth grade he should be in a position to decide upon the particular general field in which his interests lie. He should decide between industrial, professional, agricultural, or commercial vocations although he is not ready for a decision in regard to any specific branch of his chosen field

of specialization. He has reached the first turning point; he must come to a realization of the seriousness of life, of individual responsibility, of the necessity of preparation for a definite vocation. The experiences encountered in the "transitional" shop should emerge during the year of "overview" from a spirit of play into vitalized visions of life opportunities for achievement.¹

Courses of these kinds — often styled General Mechanics courses — are to be found in several of the more progressive junior high schools throughout the country. They are serving a need and are yielding valuable experiences for young people. What the specific content of such courses shall be is given by Mr. Briggs in an outline of his own work, as follows :

OUTLINE OF PROPOSED COURSES

Seventh Grade (Interest Try-outs)

Hardware	Plastering
Locks	Cement work
Hinges	Sketching of shop objects
Fasteners, etc.	Pipe fitting
Painting	Plumbing repairs
Refinishing	Forging
Varnishing	Brick work
Shellacking	Shoe repairing
Staining	Bicycle repairing
Kalsomining	Motorcycle repairs
Waxing	Automobile repairs
Enameling	Sheet metal work
Woodwork	Printing
Furniture repair	Agriculture
Building screens	Floriculture
Making shelves	Horticulture
General home repairs	Typewriting
Electric bell	Machine work
Glazing	

NOTE. Each topic should be developed in detail in a manner similar to the first three above.

¹ Briggs, H. L., "The Vocational Phases of the Junior High School" (*unpublished*).

Eighth Grade (Overview Try-outs)

Machine shop practice	Pattern making
Auto mechanics	Drafting
Electricity	Sheet metal work
Cabinet making	Carpentry

NOTE. Each topic should be developed in some detail, similar to the topics under grade seven.

Ninth Grade (Pre-vocational Try-outs)

Auto Mechanics	Testing bore for oval places
Power plants	Locating scored cylinders
Dismantling	Fitting new pistons
Cleaning parts	Aligning connecting rods
Scraping carbon	Fitting piston rings
Fitting main bearings	Replacing timing gears
Fitting connecting rod bearing	Resetting timing gears
Removing cam shaft	Other Topics
Fitting cam shaft bearings	Electricity
Reseating valve seats	Carpentry
Reseating valves	Cabinet making
Grinding valves	Pattern making
Adjusting valves	Machine shop practice
Setting up engine	Drafting
Check timing of engine	Sheet metal work

NOTE. Other subjects to be added as community possibilities develop.

Continuing, Mr. Briggs says:

In many cases the subjects suggested may be only touched upon. Printing, for instance, could consist of the simplest work, such as tickets, job directions, etc. We should, however, make the work of actual value in the way of experience and use metal type and not rubber. The machine work could be limited to a motor-driven grinder, a bench drill, drill press, and a small turning lathe.

VOCATIONAL TRAINING

That the junior high school owes an especial obligation to society for the appropriate training of the retarded pupils

and the probable drop-outs is obvious to any analyst of present-day conditions. In particular the junior high school ought to give to these individuals a social-civic education rich in practical, early-functioning elements, and a pre-vocational (or indeed, in some cases, a vocational) training as extensive and as unique as individual circumstances make necessary and possible. Not that the junior high school ought to become, in any general sense, a trade school. Certainly not. But experience is proving conclusively that it is pedagogical folly to seek to hold certain types of pupils to much so-called "academic" work, while, on the other hand, experience is demonstrating that individuals and society alike profit notably when appropriate forms of quasi-vocational instruction are provided for these pupils. Mr. Glass, discussing this phase of the subject, writes:

Particularly for these groups should there be in the program of studies a liberal amount of social-science materials, and especially social and civic activities, so that principles of social cooperation and citizenship may be translated into conduct in the educational period which immediately precedes the entrance of the junior high school drop-outs into society and active citizenship.

If their civic-mindedness is not to be undermined by the blighting influence of becoming industrial misfits and consequently social and civic cynics, the junior high school must offer to these over-aged and backward groups occupational training sufficient in extent to assure initial vocational placement. The junior high school can at least serve as a school of pre-vocational try-out and thereby replace, to an extent, the shifting from job to job in correcting industrial misfits during employment. If the junior high school can serve, even to a small degree with its limited facilities, in the prevention of industrial misfits and the consequent undermining of civic-mindedness, it will earn a degree of public confidence not possible through any other single service.

Pursuant to these ideas, it is the judgment of many educators that commercial, industrial, and agricultural courses

of distinct trade bents should be included in all grades of the typical junior high school. Thus, for example, Boston, in adopting this principle of guidance, states its plans respecting commercial work as follows:

Many pupils are preparing for commercial pursuits. From Grade VII onward they are keenly interested in subject-matter that is preparatory to business. To satisfy the demands of this large group of pupils, outlines of work in clerical practice have been prepared by a council of teachers, representing high and elementary schools. The work in clerical practice is designed to be, and is, eminently practical. It recognizes the importance of giving those pupils who must leave school early in order to enter the business world, such a knowledge and practical command of the elementary principles of business practice as shall enable them to enter upon their work with some fair prospect of success.¹

Similarly, Mr. Gould of the Los Angeles system, while openly opposed to making the junior high school a vocation school, clearly approves the principle of pre-vocational training. He says:

However, during the past nine years the attitude toward certain early aims has been definitely modified. Whereas it was originally expected that the junior high school would solve the question of vocational education, as a matter of fact it has become the belief of those concerned with the work that vocational education is not of primary concern at this age. There are at present organized in the junior high schools only three vocational classes which receive federal aid under the Smith-Hughes bill. These are in cooking of the home economics type, cooking of the restaurant type, and agriculture.

On the other hand, it has become the desire to add sufficient equipment for shop work and other hand work to make it possible to give what might be called pre-vocational or "exposure" courses. Expansion in these lines has been extremely slow and difficult on account of the limitations of the plants in which the schools are housed and the relatively small amount of money available for equipment. One school has succeeded in gathering together suffi-

¹ School Document No. 19, 1920, pages 21-22.

cient equipment to offer wood work, cement work, sheet metal work, electrical work, forge work, plumbing, and reed work, as well as agriculture. Another school is able to offer wood work, reed work, and electrical work. One school offers a large amount of printing and one other is beginning in the same line. In other words, the vision is not lacking but the material resources with which to realize upon the visions are not forthcoming.

In addition to the above mentioned work the term "vocational" must include the very large amount of commercial work done, for shorthand, typewriting and bookkeeping are offered upon a strictly vocational basis.

And finally, Mr. Glass holds up the signal of caution that merits the attention of all administrators dealing with the question involved. He says:

Vocational curricula in the junior high school, either of a commercial or industrial nature, should not represent a forced growth. They must represent the actual conditions as they exist when the *final* alternative of leaving school or choosing vocational training is reached. Whenever it is definitely determined by the guiding agencies of the school that this alternative is unavoidable, pupils should be transferred to these occupational courses, irrespective of grade classification. Grade organization must give way to a greater purpose, that of adaptability of program of studies to individual need. Occupational courses are, therefore, matters almost wholly of individual adjustment. Arbitrary administrative regulations of promotion, classification, and organization should never be permitted to conflict with demonstrated individual needs. This statement does not set up an insurmountable administrative difficulty; it is a direct contradiction of an unwarranted administrative practice which is frequently permitted to supersede individual justice to pupils. The junior high school program of studies must insist upon the adoption of this point of view, if it would promote equalization of educational opportunity.¹

VOCATIONAL GUIDANCE

It is obvious that the so-called practical or pre-vocational courses, if they are to be of value to pupils, should do more

¹ Circular, 1922, page 10.

than give an elementary knowledge of the materials, tools, and processes directly related to a single or a limited number of vocations. What is needed is vocational information that will enable pupils to obtain a view of the entire field of human occupations, information that will enable them to test their vocational interests and aptitudes and to form for themselves opinions concerning the advantages or disadvantages of particular callings.

As Mr. Charles Martens states the case :

The pupils should be given a knowledge of the typical industries, especially a knowledge of the principal occupations of the community. The pupils need a knowledge of the relative opportunities of the different vocations as to wages, possibilities of advancement, length of working season, risks of life, limb and health, how to avoid the causes that result in loss of health and life in industrial pursuits; a course which will inspire the pupils with correct ideas concerning their relation to the world of labor. Such a course makes the school studies more vital and real and shows the student the necessity for future training if he or she expects to succeed. It makes an intelligent choice of a vocation not only possible but probable.¹

The report of the Sub-Committee on Vocational Guidance of the Commission on the Reorganization of Secondary Education reads :

It is not the purpose of vocational guidance to decide for young people in advance what occupation they should follow, nor to project them into life's work at the earliest possible moment, nor to classify them prematurely by any system of analysis, either psychological, physiological, social, or economic.

Vocational guidance should be a continuous process designed to help the individual to choose, to plan his preparation for, to enter upon, and to make progress in an occupation. It calls for a progressive improvement of the public-school system and a fuller and more intelligent utilization of its richly diversified offerings. It requires a more accurate adjustment between the school and all worthy vocations. For some children it demands a plan of continuation

¹ "Vocational Education in Junior High Schools," *Journal of Education*, page 290, September, 1916.

education and supervision in employment by educational authorities. It should develop an interest in the conditions prevailing in the child-employing industries and bring about improvement of those conditions. It should utilize the coöperation of all social-service agencies that can be of assistance. For society at large it should result in a more democratic school system, a wiser economy in the expenditure of school time, and a more genuine culture.

Many people, not only teachers, but also employers and business men, have an idea that in some mysterious way we can look into the future, determine what each child should be, and prepare him specifically for that ultimate end. This is a false conception, unsupported by psychology and contrary to the principles of democracy. Vocational guidance, properly conceived, organizes school work so that the pupil may be helped to discover his own capacities, aptitudes, and interests, may learn about the character and conditions of occupational life, and may himself arrive at an intelligent vocational decision. In other words, vocational guidance, while not ignoring the proper functions of personal counsel, emphasizes vocational decision by, rather than for, the pupil and prefers to ascertain his capacities, aptitudes, and interests through, rather than before, contacts with vocational activities. Since we cannot look into the future, we must attempt to prepare young people so that they can make each decision more wisely when the need for such decision arises. Therefore, vocational guidance, rightly conceived, does not involve deciding for young people what occupation they should follow, nor projecting them into life's work at the earliest possible moment, nor classifying them prematurely by any system of analysis. . . .

The school must teach the youth not only how to adjust himself to his environment, but also how to change that environment when the need arises. Guidance that helps only a few individuals to succeed might produce a competitive system even more relentless than that of the present day. Vocational guidance should help in bringing about a coöperative solution of the problems of economic and social life, and should help the largest possible number of individuals.¹

The following is a description of the course in occupations, for vocational civics, as given in the high school at Middletown, Connecticut :

¹ Bulletin No. 19, pages 9 *et seq.*, 1918.

While the English, biology, and possibly physiography can and should contribute to a knowledge of vocations, a survey can be adequately accomplished only by making it a distinct subject.

In the half-year course in vocations in the Middletown (Conn.) High School there are studied, by the boys, fifty of the common vocations, including professions, trades, and other life occupations. A similar course, but somewhat briefer, is being organized for the girls.

In studying each of the vocations we touch upon its healthfulness, remuneration, value to society, and social standing, as well as upon natural qualifications, general education, and special preparation necessary for success. Naturally we investigate at first hand as many as possible of the vocations found in our city and vicinity. We have each pupil bring from home first-hand and, as far as practicable, "inside" facts concerning his father's occupation. We also invite local professional men, engineers, business men, manufacturers, mechanics, and agriculturists to present informally and quite personally the salient features of their various vocations. However, strange as it has seemed to us, these experts, not being teachers, often miss the mark completely and present phases of their work of little interest or value to the pupils, although each speaker has had explained to him carefully beforehand the purpose of the course in vocations and specifically just what is desired in his particular address.¹

Educators have employed various methods in order to obtain data to guide them in advising students. Among these methods are personal conferences with pupils and their parents, former teachers, and acquaintances, the use of composition papers written by pupils, and self-analysis blanks filled out by pupils. When used with delicacy and discretion, all of these methods are helpful.

By way of illustration, the self-analysis report used in the Grand Rapids Public Schools is here reprinted (pages 268-269).

¹ Wheatley, W. A., in Bulletin No. 41, U. S. Bureau of Education, 1913.

STUDENT VOCATIONAL SELF-ANALYSIS

Name. Age. Grade. S. R.

I. Inheritance.

1. Vocation of Father. Grandfather
2. Has there been any particular line of vocations noticeable on either side?
3. Have any of your ancestors been gifted in any particular line? ..
4. Education of parents.
5. Can you see any indication of inherited tendency or ability in your own life?

II. Education.

1. General standing.
2. Best study
3. Poorest study
4. Habits of study, Regular. Intermittent.
5. Choice if free to study.
6. What books do you remember best?
7. What is your favorite book? Kind of books?
8. How has your reading influenced you?
9. Has your school work indicated to you any special ability or interest?
10. If you were compelled to choose definitely between the following lines, which do you believe you ought to take: Professional? Commercial? Industrial?

III. Talent.

1. Have you a gift for music?
2. Have you talent in art? Design?
3. Are you skilled with your hands?
4. What can you do better than others of your age?
5. What is your greatest achievement?

IV. Health and Physique.

1. What is your record of health?
2. Have you lost much time from sickness?
3. What is the family health record?
4. Are you strong and robust?
5. Have you good endurance? How tested?
6. Experience in athletics
7. Experience in manual labor.
8. What forms of sport do you like best?
9. What vocations would your health or tendencies forbid you entering?

10. What vocations requiring nervous or physical strain could you *not* endure?
11. What vocations might prove the best aid to improving your physical condition?

V. Mental and Moral Qualities.

Check the qualities in which you believe yourself to be specially strong.

- | | |
|-----------------------------|------------------------|
| 1. Honesty..... | 10. Decision..... |
| 2. Dependability..... | 11. Orderliness..... |
| 3. Religious tendency | 12. Concentration..... |
| 4. Personal habits..... | 13. Accuracy..... |
| 5. Ambition | 14. Thoroughness |
| 6. Tact..... | 15. Perseverance..... |
| 7. Self-control..... | 16. Cheerfulness..... |
| 8. Self-confidence..... | 17. Adaptability..... |
| 9. Observation..... | 18. Initiative..... |

If willing, name the three qualities which you need most to develop.

19. What personal characteristics that are necessary to success in any career do you think you possess?
20. Is your ambition strong enough to hold you to a decision?
21. Are you ready to take the next step forward at any cost?

VI. Social Efficiency.

1. Of what societies have you been a member?
2. Of what organizations are you now a member?
3. Of what church are you a member?..... Attendant?
4. What offices have you held in any organizations?
5. What evidence can you give of executive ability?
6. Are you a good leader?.....
7. A good follower?
8. Are you a kicker or obstructionist?
9. Can you work harmoniously with others?

VII. Vocational Experience.

1. What positions have you held?
- Place
- Time.....
- Wages.....
- Kind of work.....
2. What work appealed to you most?
3. Did you find any work for which you were unfitted?
- How?
4. In your experience did you find any special ability or skill that you had developed?
5. Does your experience point out for you any special line of work or study that you ought to follow?

CHAPTER FIFTEEN

FINE ARTS AND MUSIC

NO school that professes to serve the interests of all types of pupils can justly ignore or treat slightly the artistic and emotional elements that pertain to education. That our schools have hitherto neglected these elements is not to be denied. The cause of this neglect may perhaps be traced to the influence of the Puritans, who held the exercise and cultivation of the emotions to be fraught with great dangers to individuals and to society, and who regarded certain forms of art as weakening to the character, if not indeed an open confession of sin.

It is, therefore, only within very recent years that art and music have found any assured place in the public school curricula, and even yet the rank accorded them is not a co-ordinate one. Just why the pupil of artistic tastes should be discriminated against and not allowed to pursue vigorously the subjects that really interest him is not clear. Just why the refining influences of art and music are not more highly exalted in the scheme of things for all pupils is likewise difficult to explain. That art has wonderful values, particularly in an age when many hours of leisure are at the command of the average individual, would seem to need no argument. That music possesses values of many sorts seems likewise to call for little discussion. Fundamentally, people live in their emotions, and no art has a more refining influence on the emotions than music. "I care not who makes the laws of a nation if I may write its songs" is as true today as it ever was. Sentiment is more powerful than logic or courts of law, and music is the very soul of sentiment.

VALUE AND PLACE OF ART IN THE PUBLIC SCHOOLS

Regarding the value of music, the Maryland School Bulletin says :

Music has its uses in time of peace no less than in time of war. This has been true from primitive times up through the centuries, and it is truer today than ever before, since customs, memories, traditions, emotions, human sacrifice, effort and victory, individual and national hopes and beliefs, human sympathies, all, are recorded in this common and universal language, ready to be renewed, recalled, and retold, as we labor or are at leisure ; worship or play ; in childhood, youth, or old age. In fact, there is no occasion in all life's legitimate and wholesome experiences in which music does not minister to our needs. The individual when alone may be entertained, consoled, or instructed by it; and all social groups from a few, and in the humblest home, to the great public and political throngs, need its ministration as a morale ration, a mind and soul tonic.¹

Professor Walter Sargent, discussing the value and place of art in the schools, writes thus :

The tendency emphasized above all others . . . is in the direction of bringing art instruction into more direct and intimate connection with school and home and community interest. The specific points of contact most emphasized are the following :

- (1) More use of drawing to illustrate other school subjects.
- (2) An especially close correlation with manual arts.
- (3) More definite attention to developing appreciation of good pictorial art and of excellent constructive and decorative design.

The changed attitude regarding drawing and design may be broadly summarized in the following statements :

- (1) That the tendency is less toward trying to interest children in drawing as a subject, and more toward using it as an efficient and unique means of expressing and promoting whatever interests school and home and community life have awakened.
- (2) That instruction in design deals less with formal exercises in arrangement, and more with problems directly and practically concerned with school and home surroundings and with

¹ *Op. cit.*, Vol. 1, No. 1, page 5.



Frank I. Cooper Corporation, Architects
Junior High School at Longmeadow, Massachusetts.

industrial life. The methods of instruction are coming to include, in addition to practice in designs, much experience in choosing as one must choose when he makes actual purchases.¹

In the typical programs of studies shown in Chapter Seventeen of this volume, music and art uniformly find place assignments, but the time allotments accorded to them are rarely in excess of two periods a week. Moreover, when one studies these programs, the thought arises that the real purposes for which music and art ought to be incorporated in the school are, in many instances, not accomplished. It seems clear, therefore, that what is needed is a complete reorganization of the work.

In music and art, as in the other departments of junior high school work, good psychology and good pedagogy suggest that the wisest approach is by means of broad introductory courses. Not technical courses nor drill courses, but appreciation courses should constitute the beginning courses in these subjects. Furthermore, an appreciation of art and music comes most readily to pupils when they are surrounded by an artistic atmosphere. As Van Denburg states it:

If our pupils are to learn to appreciate and so to enjoy the beautiful paintings, the beautiful statues, the beautiful buildings that they may later have the opportunity of seeing, or to enjoy the beautiful music that they may later have the opportunity of hearing, some of us may feel that they should be led toward this enjoyment by being given the opportunity to develop it in the presence of the things they may later be led to love. Indeed, some may believe that children can gain an appreciation of the beautiful in art by being brought constantly in contact with it, in much the same way as a child learns to speak by constantly hearing his parents' and play-mates' conversation.²

¹ *Instruction in Art in the United States*, Bulletin No. 43, pages 4-5, 7. U. S. Bureau of Education, 1918.

² Van Denburg, J. K., *The Junior High School Idea*, pages 188-189.

Ella Bond Johnston, after reminding us that complete living has for ages been declared to consist of the attainment and exercise of truth, goodness, and beauty, and that the modern world has been woefully neglectful of the last of these, remarks :

It has too long been taken for granted in America that taste is inborn. Different degrees of capacity for acquiring it, doubtless, may be innate in individuals, but taste is not inborn. Bad taste is ignorance. Good taste is as much a matter of education as proficiency in any branch of learning, but it cannot be learned out of books nor by the psychological and scientific methods in use in our schools for presenting other subjects. Taste requires for its development the actual, environing presence of works of art — poetry, music, painting — to hear and see familiarly.¹

TYPICAL COURSES OF STUDY IN ART AND MUSIC

How completely, or incompletely, schools are organizing their courses so as to realize these ideals can be judged in part by the following outlines of courses given in four cities in different parts of the country.

Monmouth, Illinois

FINE ARTS

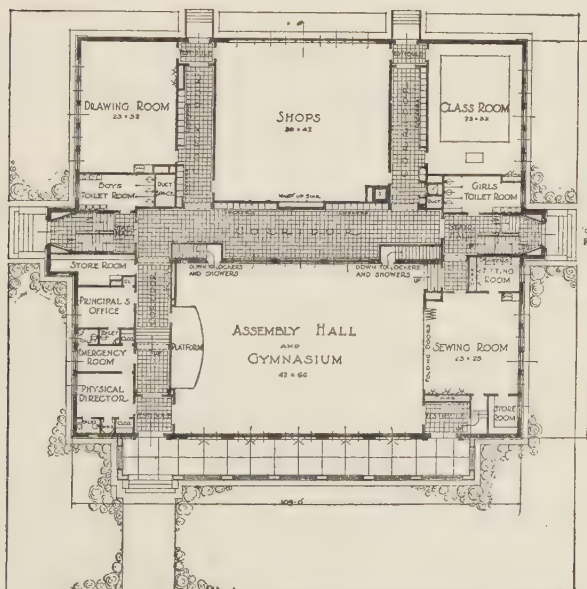
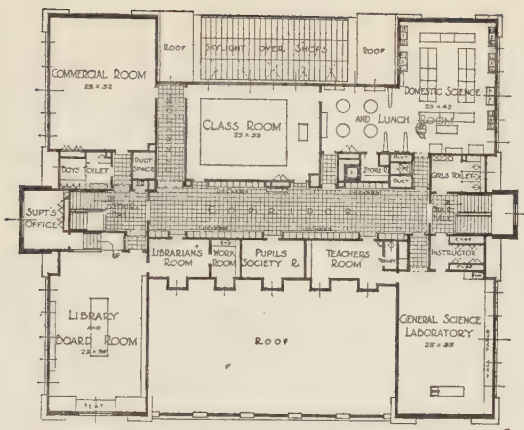
Seventh Grade

Time : forty to sixty minutes per week.

Emphasis on household decoration ; book containing working plans for a house, notes on woodwork, wall coverings, floor coverings, furniture, bric-a-brac, pictures, and plans for each room of an ideal home ; flower studies, designs in landscape, color harmonies, applied to household decoration ; object drawing in pastello on toned paper ; drawing in color of views of a simply furnished room ; stenciling and woodblock printing applied to household decoration ; design for book cover for household decoration book.

Art Appreciation : pictures suitable for home decoration.

¹ Johnston, C. H., *The Modern High School*, page 693.



Frank I. Cooper Corporation, Architects

Ground-floor plan (below) and second-floor plan (above) of Junior High School at Longmeadow, Massachusetts.

Eighth Grade

Time: forty to sixty minutes per week.

Art Appreciation: landscapes, mural decoration, religious paintings, portraits and statuary, study of composition arrangement, rhythm and balance, color, tone and harmony; a short course in history of art; lettering, poster making.

MUSIC

Seventh and Eighth Grades

Time: sixty minutes per week.

Aims: completing those of previous years. Enjoyment of singing.

Material: Seventh Year: Progressive Book III. Use best folk songs, patriotic songs, good hymns, and other songs needed for special occasions.

Eighth Year: Progressive Book IV. Glee club songs. Community singing. Orchestra.¹

Los Angeles, California

The art work of the Los Angeles schools is planned as follows:

ART

Purpose.

The purpose of a course in art is to attain the artistic habit of mind; to cultivate appreciation and enjoyment of the beautiful by observation, by reproducing what is seen, by cultivating the imagination through evolving new creations, by helping students to acquire a sense of power through skill in technique and a knowledge of the principles of harmony of color; to utilize in the practical affairs of life their technical attainments; to give labor æsthetic expression; and to assist in raising the standard of civic art in the community.

Scope.

The scope of the work in art in the Intermediate and High Schools includes practice in handling the different media for artistic expression; pictorial representation of objects within and without the classroom; studies from life; designing; illustration; domestic decoration; clay-modeling; applied art work in wood, metal, and other materials; art history and art appreciation either by lectures or by the study of text.

¹ Monmouth Public Schools, page 75.

Methods.

In teaching pupils to see with understanding, to do without loss of individuality, to repeat again and again without discouragement in order to acquire skill, it is necessary that the teacher be master of many methods. Variety of methods as well as of work is necessary to bring out the different powers of the individual. To become an adept in developing a love for proportion, rhythm, and harmony in different pupils a teacher must approach them at different angles and with different methods, with the idea of thought in the conception, delight in the work and adaptation to use and environment.¹

Rochester, New York

Rochester describes its work thus :

ART INSTRUCTION

The aim of art instruction is to equip the student with a knowledge of certain governing principles that will acquaint him with standards or tests by which he may estimate the beauty or merit in all of his surroundings ; also to give him a fuller understanding of art in its relation to his own life and to the industries of the world, thus establishing art education as an indispensable factor in the education of the American people.

The pupils from the elementary schools come to the junior high school with a fair knowledge of color, with fundamental ideas of what is best in design together with the practical knowledge of application of simple designs, and with the elementary basic principles of perspective as applied in the drawing of objects. It is the purpose of the work in the junior high school to add definite gain in color appreciation, technique, and skill along lines already partly developed in the lower grades ; to emphasize creative ability ; to continue to develop a love for the beautiful wherever the child comes into contact with it ; and to encourage self-expression in every possible way.

The work in music is outlined along three general lines, namely, chorus work, appreciation, and theory, as follows :

Seventh Grade B

(1) Chorus work.

Standard songs, folk songs, patriotic songs, and two and three part work for unchanging voices.

¹ Los Angeles, California, Course of Study, 1917-1918.

(2) *Appreciation.*

Here the work is extensive rather than intensive; a study of orchestral instruments is made and an opportunity provided for making a distinction between men's voices and women's voices.

(3) *Theory.*

Rhythm, sight reading, minor mode, and scale formations.

Seventh Grade A

Pre-vocational work is provided during this semester as follows :

(1) Pupils who wish to play a musical instrument other than the piano and who have passed a musical test given at the end of the seventh grade B are chosen for this class. Class lessons on violins, cornets, drums, and other band and orchestral instruments are given by a special teacher.

(2) Special chorus work is provided.

(3) *Appreciation.*

Special attention is given to orchestral work and records of the best orchestras are used for this purpose. Both instruments and composers are studied.

(4) *Theory.*

Attention is given to scales, chords and clefs used for the different instruments, a study of the seating of large orchestras is made, and essential musical terms and characters are learned.

(5) In the cultural music class, composed of pupils who take lessons outside of school, special vocal work is given; a general study of appreciation is provided for; and a special arrangement and application of theory work is made. There have been periods when the members of this class have gone home to practice lessons. In such instances a record of the time is kept on a special card provided for this purpose.

Eighth Grade B and A

(1) Chorus work is continued.

(2) *Appreciation.*

(3) *Theory.*¹

¹ Junior High School Course of Study, Rochester, New York, 1919.

Grand Rapids, Michigan

Grand Rapids plans its music courses thus :

Aims

- (1) To stimulate love for and appreciation of good music among all pupils, whether going on to high school and college or into factories and commercial pursuits.
- (2) To develop the ability to sing, in parts, music of a grade that pupils will have occasion to use after leaving school. Pupils should be able to read material of the difficulty of the average hymn tune.
- (3) To discover the pupils with pronounced musical talents and enable such pupils to develop their talents as a regular part of school work.

Organization

Music is required of all pupils in seventh and eighth grades. It is elective in the ninth grade. Two forty-five minute periods weekly are devoted to music in seventh and eighth grades as well as with elective classes above those grades. The classes vary in size, depending upon the organization of classes in other subjects. Boys and girls are not segregated for music work but meet in mixed classes.

Equipment

A classroom devoted exclusively to music; a piano in good tune; a phonograph and library of records; a few pictures on musical subjects; a bulletin board on which pupils may post clippings or pictures from musical papers or on musical subjects; an ample supply of music stands; adequate closet space for music.¹

INSTRUCTION IN MUSIC

The Commission on the Reorganization of Secondary Education makes the following statements and recommendations :

While many people go through life without a taste for music or any pleasure in it, the large majority of people come eventually to realize that with a little more opportunity for musical culture in their

¹ Beattie, J. W., Supervisor of Music, Grand Rapids, Michigan.

earlier years, or a little more attention to the subject on their own part, they would be capable of a finer enjoyment and pleasure in music. . . . The Committee recommends that in no case should chorus singing be omitted and also urges the importance of the orchestra.¹

That the phonograph is one of the best agencies for the teaching of musical appreciation is generally recognized. No school should be without one. The State Board of Education in Maryland publishes a list of records that are particularly suitable for the public schools. The entire list numbers two hundred and forty-one, most of which are appropriate for use in the junior high school. The list contains the following groups :

	RECORDS
(1) Band marches	14
(2) Intermediate rote songs	11
(3) Folk songs	6
(4) Band accompaniments	18
(5) Whistling	6
(6) Folk dances (<i>singing, games, etc.</i>)	31
(7) Nature study	11
(8) Old familiar songs, hymns, etc.	17
(9) Records for appreciation — voices	38
(10) Records for appreciation — instruments	41
(11) Descriptive	28
(12) Yodels	4
(13) Comics	6
(14) Christmas hymns and choruses	10

NEW YORK MUSIC MEMORY LIST

The Music Memory List for the public schools of New York City consists of the following selections, all of which it is expected every pupil in the city schools will know :

Musetta's Song (<i>La Bohème</i>)	Puccini
Caro Nome (<i>Rigoletto</i>)	Verdi
My Heart at Thy Sweet Voice (<i>Samson and Delilah</i>)	Saint-Saëns

¹ U. S. Bureau of Education, Bulletin No. 49, page 17, 1917.

Trio — Prison Scene (<i>Faust</i>)	Gounod
Barcarolle (<i>Tales of Hoffmann</i>)	Offenbach
Intermezzo (<i>Cavalleria Rusticana</i>)	Mascagni
Meditation (<i>Thaïs</i>)	Massenet
Triumphal March (<i>Aïda</i>)	Verdi
Dagger Dance (<i>Natoma</i>)	Herbert
Anvil Chorus (<i>Il Trovatore</i>)	Verdi
Miserere (<i>Il Trovatore</i>)	Verdi
Toreador Song (<i>Carmen</i>)	Bizet
Soldiers' Chorus (<i>Faust</i>)	Gounod
Minuet (<i>Don Giovanni</i>)	Mozart
Sextette (<i>Lucia</i>)	Donizetti
Quartet (<i>Rigoletto</i>)	Verdi
Overture (<i>William Tell</i>)	Rossini
Lift Thine Eyes (<i>Elijah</i>)	Mendelssohn
With Verdure Clad (<i>Creation</i>)	Haydn
And the Glory of the Lord (<i>Messiah</i>)	Handel
Ave Maria	Bach-Gounod
Hallelujah Chorus (<i>Messiah</i>)	Handel
Andante (<i>Fifth Symphony</i>)	Beethoven
Theme (<i>New World Symphony</i>)	Dvořák
Andante (<i>Surprise Symphony</i>)	Haydn
First Movement ("Unfinished Symphony")	Schubert
Spring Song	Mendelssohn
Salut d'Amour	Elgar
To a Wild Rose	MacDowell
Narcissus	Nevin
Humoresque	Dvořák
Morning	} Grieg
Anitra's Dance	
In the Hall of the Mountain King	
Ase's Death	
Hungarian Rhapsody, No. 2	Liszt
Wedding March	Mendelssohn
March of the Toys	Herbert
Nocturne in E Flat	Chopin
Minuet in A	Boccherini
Marche Militaire	Schubert
Dream of Love	Liszt
Chant sans Paroles	Tschaikowsky

Minute Waltz
Largo
Cavatina
Elégie

Chopin
Handel
Raff
Massenet

National Songs

Hail, Columbia
Men of Harlech
Rule, Britannia
La Marseillaise
La Brabançonne
Garibaldi Hymn

American Patriotic Song
Welsh Patriotic Song
English Patriotic Song
French Patriotic Song
Belgian Patriotic Song
Italian Patriotic Song

American Songs

From the Land of the Sky-Blue Water
The Year's at the Spring
Mighty Lak' a Rose
O Promise Me
Carry Me Back to Old Virginny
Come Where My Love Lies Dreaming
Swing Low, Sweet Chariot
Flow Gently, Sweet Afton
Deep River

Cadman
Beach
Nevin
DeKoven
Bland
Foster
Negro Spiritual
Spilman
Negro Spiritual

Miscellaneous Songs

Sweet and Low
The Lost Chord
Love's Old Sweet Song
Hark ! Hark ! The Lark
Who is Sylvia
Home, Sweet Home

Barnby
Sullivan
Molloy
Schubert
Schubert
Bishop

SUMMARY

In conclusion, it may be said, first, that in much of the junior high school work in music, an instructor's chief concern should be to teach pupils to recognize great masterpieces when they hear them; to know something about the composers of these masterpieces; to possess a desire and ability to participate in chorus singing; to be familiar with the various instruments that compose the modern

orchestra ; and to develop a taste for good music and pleasure in its execution. Second, that the purpose of all art instruction in the junior high school is to train each pupil to enjoy good art in its various forms ; to know something of the masters of art and their notable works ; and to exercise, albeit in an elementary way, his own artistic powers.

CHAPTER SIXTEEN

MORALS AND MANNERS

IT is, of course, questionable just how appropriate and effective a distinct course of morals and manners in the junior high school may be. That ideals and habits pertaining to good form and good character should incidentally be taught in the junior high school (as in all other grades) few would deny. That topics relating to deportment may properly occupy definite periods of time in the lower grades is likewise a view that is maintained by many educators. That a course dealing specifically with the ethics or the principles of morality may wisely be offered in college or in the senior high school seems justified by experience. But what shall be the solution of the moral problem in connection with the junior high school years is not fully determined.

Nevertheless the following outline of what is attempted in Los Angeles illustrates what may be done : ¹

SOME EXPEDIENTS FOR TRAINING IN MORALS AND MANNERS

The object of the work suggested in this outline is to place before the students some standards of conduct and, by a concerted effort, to encourage improvement in manners and morals.

The scope of the work is purely practical, with no attempt to elucidate the theory or philosophy of right acting.

The instruction is given through informal discussions in small groups in classrooms, supplemented by talks in general assembly.

MORALS

(I) Honesty.

(1) Truthfulness.

(a) Its moral beauty.

(b) The sure sign of a brave character.

¹ Los Angeles Course of Study, pages 93 *et seq.*

- (c) Absolutely necessary to the maintenance of stable relations in society. Conduct of all business impossible if dishonesty were predominant.
- (2) Sincerity, as opposed to deceit and flattery, a necessary accompaniment of all friendship.
- (3) Lying.
 - (a) In the matter of excuses, claiming illness as excuse for tardiness or absence, when not ill. An almost necessary outgrowth of this is the forged excuse.
 - (b) Inventing excuses for non-preparation of lessons and for failure to conform to time requirements in completing work.
 - (c) All lying a species of cowardice. The boy or girl is too much of a coward to face the facts and meet the consequence of his conduct.
 - (d) A second falsehood is almost a necessary sequel to the first.
 - (e) On the other hand a frank confession of wrong-doing is a long step toward restitution. "A sin confessed is half redressed."
- (4) Cheating.
 - (a) Unfair to others in class because one appropriates without effort that which has cost the others effort.
 - (b) More unfair to oneself because cheating deprives the boy or girl of the chief benefit to be derived from the school; viz., the opportunity to develop through effort.
 - (c) Independence in the acquisition of knowledge the first essential of the real scholar.
- (5) Stealing.
 - (a) A discussion of the circumstances which create temptation, such as the desire to possess better clothes than one can afford or the desire to enjoy some pleasure which one cannot afford or of which friends disapprove.
 - (b) The importance of a sturdy independence which scorns to appropriate others' belongings and exults in earning one's own way.
 - (c) The wrong to others who may suffer greatly from even a small loss, as for instance the theft of a note-book which is due and on which a grade may depend, or the theft of a book at a critical time, as just before a test.

- (d) The duty of all to take care of their belongings so as not to place needless temptation in others' way.

(II) Sympathy.

- (1) Leads to a broad understanding of others.
- (2) This understanding of others creates tolerance and a willingness to coöperate in all possible ways in home and community life.
- (3) Sympathy, fundamental quality for those who aspire to be leaders.
 - (a) Essential to winning the coöperation of others in one's own projects.
 - (b) Cold natures repel: sympathetic natures attract and thus win the support of others.

(III) Simplicity.

- (1) In dress.
 - (a) An indication of gentle breeding which depends on real worth and not on externals for recognition and approval.
 - (b) An indication of good judgment which understands the true value of things. Life is too precious to spend in overmuch care for dress. "Consider the lilies of the field, how they grow." They have time to grow.
- (2) In speech.
 - (a) Slang. The braggart. The profane.
Refined, forceful, pleasing speech is a great asset in business as well as social life. Acquired only by effort.
- (3) In actions.
 - (a) The ostentatious. The haughty. The trifling. The overstraining for effect in conversation and conduct reacts on character, making it more and more artificial and insincere.

(IV) Loyalty.

- (1) To one's family.
Even faults, weaknesses, and sins furnish no excuse for failure in loyalty to one's family.
- (2) To one's friends.
Friends need help most when they are in trouble.
- (3) To one's school.
 - (a) In protecting its property.

- (b) In supporting its student activities.
- (c) In upholding the good name of the school.
- (4) To one's city.
 - (a) Intelligent and sympathetic interest in its problems and projects. Especially due from those educated in the city's schools.
 - (b) Problems peculiarly adapted to elicit interest and co-operation of young, as clean streets, cultivation of vacant lots, etc.
- (5) To one's country.
 - (a) Treatment of the flag.
 - (b) The correct thing to do when our national hymns are sung.
 - (c) Not closing our eyes to our national shortcomings. Not necessary to advertise those shortcomings.
 - (d) The correct interpretation of "My country, right or wrong."
 - (e) Loyalty implies active support of public measures.

(V) Industry.

- (1) Value of work.
 - (a) In developing body and mind.
 - (b) In keeping from wrong ways of acting and thinking.
- (2) Change of work, not cessation, often the best recreation. Value to the student of changing to out-of-door work or household tasks.
- (3) Industry is not merely being busy but implies concentration.
 - (a) Mental concentration most important to students. Cultivate oblivion of everything save task in hand. Importance of learning to study in study room. Possible to gain absolute mental control.
 - (b) Importance of methodical division of time so as to approach the same task each day at the same time and also master the task within the allotted time.
- (4) Examples of industry and what has come of it. Edison, Roosevelt, etc.
- (5) Inspiration of feeling that one has a worthy share in world's work. Excellent suggestions on the topic, especially in concentration, can be found in Arnold Bennett's

How to Live on Twenty four Hours a Day and The Human Machine.

(VI) Obedience — the accepting of rightful guidance.

- (1) Necessary to individual progress, which results from the one who knows, guiding the one who does not know.
- (2) Necessary to social progress. Certain principles of conduct and certain lines of procedure recognized as binding on all (customs and laws). From these result orderly communities where life and property are safe and social progress is possible.
- (3) School communities must submit to rules of guidance in order to accomplish their work. Picture a school where each does as he pleases. Rules should be equally binding on all.
- (4) School officers, however, should not be looked upon as the makers and enforcers of rules, but as the regulators of school activities to the accomplishment of school tasks.
- (5) Self-government implies the intelligent recognition by the individual of the need for rules of conduct (school rules and society requirements) and the voluntary observance of the same. Self-government is the finest manifestation of obedience.

MANNERS

(I) Manners in public.

- (1) Manners on the street.
 - (a) Crowding others off the walk.
 - (b) Taking left instead of right side.
 - (c) Boisterous laughing and talking.
 - (d) Attracting attention by overdress or inappropriate dress.
 - (e) Crowding ahead of ladies or older people in taking cars or entering buildings.
 - (f) Throwing paper or other litter on the streets.
 - (g) Lifting hats, when and to whom.
 - (h) Assisting ladies, when and how.
- (2) Manners on cars.
 - (a) Talking of one's private affairs.
 - (b) Discussing others and their affairs; discussing school matters.

- (c) Conversation on cars and in all public places should be guarded and impersonal.
- (d) Taking seats while older people stand.
- (e) Chewing gum, eating peanuts on cars and in other public places.
- (f) Interfering in any way with conductor, gripman, or passenger. (Not to be spoken to unless occasion demands it.)
- (3) Manners at public gatherings, including Assembly halls.
 - (a) Whispering and rattling programs.
 - (b) Applauding at the wrong time; for instance, just before the end of a musical selection by which the last notes are lost.
 - (c) Carrying on conversation while the orchestra is playing at school assemblies.
 - (d) Preparing to leave before program is quite ended.

(II) Student manners.

- (1) In the halls.
 - (a) Loud talking, boisterous laughing, whistling.
 - (b) Running, pushing, unnecessary crowding.
 - (c) Not good manners for boys to wait about in halls for girls or for girls to wait for boys. School a place of business and not for sentimental meetings between boys and girls.
 - (d) Courteous attention to strangers in the halls.
 - (e) A proper attitude of boys and girls toward each other, courteous, never familiar.
- (2) In the classroom.
 - (a) Be courteous to teachers in manner of entering and leaving room.
 - (b) Be attentive.
 - (c) Be responsive.
 - (d) Be helpful to teachers in distributing papers, gathering papers, etc.
 - (e) In teacher's absence act the part of a gentleman or a lady, and not that of a school child.
 - (f) Be considerate of mates by listening to recitation, and refraining from laughing at mistakes. Put yourself in the other's place.

(III) Telephone manners.

- (1) Be civil to Central.
- (2) Do not "visit" on the telephone.
- (3) Limit conversation to reasonable time.
- (4) Be careful of language used.
- (5) Talk of no personal matters. It is a mistake to suppose that telephones are private. None are absolutely so.
- (6) Do not discuss others or the business of others. Not safe and not kind.

The following list of books and articles is also suggested by the Los Angeles school authorities :

STORIES AND ESSAYS FOR COURSE IN ETHICS

INTERMEDIATE AND HIGH SCHOOLS

- Antoninus, M. A. Marcus Aurelius Antoninus to Himself ; in English, by G. H. Randall.
- Bennett, A. Reasonable Life. (Mental efficiency.)
- Brown, A. F. John of the Woods. (Kindness to animals.)
- Brown, A. F. Their City Christmas. (Good manners.)
- Bull, Jacob. Fridjof Nansen. (Perseverance and self-discipline.)
- Connor, Ralph. Man from Glengarry.
- Crawford, W. H. Girolamo Savonarola. (Courage and devotion to duty.)
- Daulton, A. C. From Sioux to Susan. (Unselfishness and cheerfulness.)
- Dix, B. M. Betty-Bide-at-Home. (Unselfishness and courage.)
- Epictetus. Discourses of Epictetus, tr. by George Long.
- Ewing, Mrs. J. H. Story of a Short Life. (Heroism.)
- Faris, J. T. Winning Their Way. (Boys who learned self-help.)
- Gellibrand, Emma. J. Cole. (Industry and loyalty.)
- Greene, Homer. Blind Brother. (Truthfulness.)
- Greene, Homer. Pickett's Gap. (Truthfulness.)
- Hare, Christopher. Story of Bayard. (Chivalry.)
- Hill, Marion. Harmony Hall. (Sympathy and courage.)
- Hillis, N. D. Contagion of Character.
- Hillis, N. D. Man's Value to Society.
- Hobson, R. P. Buck Jones at Annapolis. (Honesty in school.)
- Hobson, R. P. In Line of Duty. (Patriotism.)

- Horne, C. S. David Livingston. (Self-sacrifice and loyalty to duty.)
- Jacobs, E. S. W. F. Club. (Contentment, making the best of circumstances.)
- Major, Charles. Little King. (Loyalty to friends.)
- Maynard, Colton. Elliott Gray, Jr. (Honesty and loyalty.)
- Paine, R. D. Dragon and the Cross. (Loyalty and courage.)
- Richards, L. E. On Board the *Mary Sands*. (Unselfishness.)
- Seawell, M. E. Decatur and Somers. (Loyalty to friends.)
- Seawell, M. E. Little Jarvis. (Loyalty to duty.)
- Smith, E. H. Peter. (Self-sacrifice.)
- Stein, Evaleen. Little Shepherd of Provence. (Kindness.)
- Thurston, I. T. Bishop's Shadow. (Honesty.)
- Upton, G. P. General ("Chinese") Gordon, the Christian Hero. (Loyalty to duty and self-sacrifice.)
- Wiggin, K. D. Mother Carey's Chickens. (Loyalty to family.)
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CHAPTER SEVENTEEN

TYPICAL PROGRAMS

THE following programs have been selected to illustrate the fundamental unity of purpose that underlies junior high school work in the United States and the manner in which the general program of studies, while expressing this unity of purpose, may be and is modified to meet local conditions.

BERKELEY, CALIFORNIA

Berkeley has four junior high schools. The programs followed by these schools are not uniform. The following three illustrate the manner in which the city varies the work of the junior high schools in order to meet the needs of various types and classes of pupils:¹

GARFIELD INTERMEDIATE HIGH SCHOOL

SEVENTH GRADE	EIGHTH GRADE	NINTH GRADE
<i>Required</i>	<i>Required</i>	<i>Required</i>
English	English	English
History	History	Oral English
Geography	Arithmetic	Music
Arithmetic	Drawing	Physical Education
Drawing	Sewing	
Cooking	Manual Training	
Manual Training	Music	<i>Electives</i>
Music	Physical Education	
Physical Education		(Select any three)
<i>Optional</i>	<i>Optional</i>	Ancient History
		Algebra
		French
(One recommended)	(One recommended)	Spanish
Extra English	Extra English	Latin
French	French	Drawing
Latin	Latin	Sewing or Cooking
	General Science	Manual Training

¹ Circular June, 1919.

EDISON JUNIOR HIGH SCHOOL

SEVENTH GRADE

Required

English
History
Geography
Arithmetic
Oral English
Public Speaking
Debating
Drawing
Cooking
Manual Training
Music
Physical Education

Optional

(One recommended)

French
Spanish
Typewriting
Printing
Gardening

EIGHTH GRADE

Required

English
History
Arithmetic
Oral English
Public Speaking
Debating
Drawing
Sewing
Manual Training
Music
Physical Education

Optional

(One recommended)

French
Spanish
Typewriting
General Science
Printing
Gardening

NINTH GRADE

Required

English
Oral English
Public Speaking
Debating
Music
Physical Education

Electives

(Select any three)
Commercial English
Ancient History
French
Spanish
Latin
Commercial Arith.
Algebra
Typewriting
Bookkeeping
Shorthand
General Science
Drawing
Sewing or Cooking
Manual Training
Printing
Gardening
Salesmanship

BURBANK JUNIOR HIGH SCHOOL

SEVENTH GRADE

Required

English
History
Geography
Arithmetic
Penmanship
Music
Drawing
Cooking
Manual Training
Hygiene 7 B First Aid
Physical Education

EIGHTH GRADE

Required

History
English
Geography
Arithmetic
Bookkeeping
Penmanship
Music
Drawing
Sewing
Manual Training
Physical Education*

NINTH GRADE

Required

English
Music
Physical Education

Electives

(Select any three)
Commercial English
Ancient and Medieval
History
American History and
Civics

BURBANK JUNIOR HIGH SCHOOL (*Continued*)

SEVENTH GRADE	EIGHTH GRADE	NINTH GRADE
<i>Optional</i>	<i>Optional</i>	<i>Electives (Continued)</i>
(One recommended)	(One recommended)	Commercial Arithmetic
Special English	Special English	Algebra
Printing	Typewriting	Typewriting
Typewriting	Stenography	Stenography
Gardening	Sewing or Manual Arts	Bookkeeping
Band	Printing	General Science
Orchestra	Gardening	Penmanship
	Band	Trade Drawing
	Orchestra	Cooking and Sewing
		Printing
		Manual Arts
		Band
		Orchestra

PASADENA, CALIFORNIA

The Pasadena program also offers opportunity for wide choice of subjects.

JUNIOR HIGH SCHOOL PROGRAM OF STUDIES

1922-1923

SEVENTH GRADE PERIODS	EIGHTH GRADE PERIODS	NINTH GRADE PERIODS
English5	English5	English5
Geography $\frac{1}{2}$ }	History and Civics . . .5	Physical Education . . .5
History $\frac{1}{2}$ }5	Physical Education	
Arithmetic5	and Hygiene5	<i>Electives</i>
Physical Education		Agriculture5
and Hygiene5	<i>Electives</i>	Design and Repre-
<i>Electives</i>	Sheet Metal5	sentation5
Woodwork5	Elem. Mechanics . . .5	Pottery5
Agriculture5	Agriculture5	Commercial Arith. . . .5
Typewriting5	Typewriting5	Penmanship and
Penmanship and	Penmanship and	Spelling5
Spelling5	Spelling5	Sewing5
Sewing5	Freehand Drawing . .5	Latin5
Freehand Drawing . .5	Mechanical Drawing .5	French5
Mechanical Drawing .5	French5	Spanish5
Music5	Spanish5	Shop Work5
General Science5	General Science5	Printing5
	Cooking5	Mechanical Drawing . .5

SEVENTH GRADE PERIODS	EIGHTH GRADE PERIODS	NINTH GRADE PERIODS
<i>Electives</i>	<i>Electives</i>	<i>Electives</i>
Spanish5	Music5	Algebra5
French5	Business Arithmetic . .5	General Math.5
	Algebra5	Notation and Sight Singing5
		Instrumental Music . .5
		Orchestra5
		Band5
		Drum Corps5
		Bugle Corps5
		Biology5
		General Science5
		American Citizen- ship $\frac{1}{2}$ } . . .5
		Ancient History $\frac{1}{2}$ }
		Vocational Civics5

Conspicuous features of the Pasadena program of studies are the following:

- (1) The differentiation of the seventh and eighth grade work into eight distinct curricula:

(a) Manual arts	(e) Language
(b) Mechanical drawing	(f) Science
(c) Agriculture	(g) Domestic science
(d) Commercial	(h) Art
- (2) Pupils elect to pursue a given curriculum throughout the junior high school.
- (3) Each curriculum differs from all the others in regard to prescribed subjects. Each curriculum also permits of electives: one, in the seventh grade; two, in the eighth; and three, or more, in the ninth.
- (4) All studies are pursued five periods a week, even such subjects as music, drawing, and shop work.
- (5) One year of shop work is required of all boys before completing the eighth grade.
- (6) No mathematics is prescribed for any pupil after the seventh grade.

- (7) Choice of a modern language (French or Spanish) is given before an ancient language is studied; the choice being open to pupils of the seventh grade.
- (8) Typewriting and allied commercial work are open to pupils in the commercial curriculum in the seventh grade.
- (9) General science is an elective study, except for pupils in the science curriculum.
- (10) The only required studies in the ninth grade are English and physical education.
- (11) The project idea is in effect in the agricultural curriculum in the seventh grade, there being six projects definitely outlined, as follows: (a) home vegetable garden; (b) egg production; (c) pigeons; (d) market garden; (e) rabbit raising; (f) flowers.
- (12) Eleven elective studies are available in the seventh grade; fourteen in the eighth grade; and twenty-five in the ninth grade.
- (13) Sixty minutes is the length of class periods in all studies in all grades.

GRAND RAPIDS, MICHIGAN

GRAND RAPIDS JUNIOR HIGH SCHOOL COURSE OF STUDY

SEVENTH GRADE

	PERIODS
Arithmetic	5
English	5
Geography and History	5
Art	2
Music	2
Penmanship	1
Physical Education	2
Manual Training or Printing	4
Required	<u>26</u>

EIGHTH GRADE

	PERIODS
Arithmetic	5
English	5
U. S. History	5
Art	2
Music	2
Penmanship	1
Physical Education	2
Manual Training or Printing	4
Required	26
Optional 4 or 5 in addition to above.	

NINTH GRADE

Algebra	5
English	5
Civics $\frac{1}{2}$ }	5
General Science $\frac{1}{2}$ }	
Physical Education	2
Definitely prescribed	17
Optional Minimum 5	Required Minimum 22
“ Maximum 10	“ Maximum 27

Students preparing for a college which requires ancient history may substitute ancient history for civics and general science in ninth grade. Students who make this substitution must select American history and civics in twelfth grade.

Grand Rapids is often regarded as the second city, in point of time, to establish a junior high school. It is interesting, therefore, to compare its present program of studies with one in use at an earlier date. Since 1914, Grand Rapids has made the following changes:

- (1) Geography and history in seventh grade have been correlated.
- (2) Reading, as such, has disappeared from the curriculum.
- (3) Penmanship has taken a recognized place in the seventh and eighth grades.

- (4) Music and art have each been expanded one hundred per cent.
- (5) Physical education is recognized.
- (6) Printing is given a correlative rank with manual training and may be pursued instead of it.
- (7) Algebra, English, civics (one half year), general science (one half year), and physical training are prescribed for all pupils in the ninth grade.
- (8) The total number of units pursued each week in the seventh and eighth grades is increased from twenty-one to twenty-six.

Commenting upon this change, Superintendent Greeson remarked:

The curriculum was adopted . . . for use in seventh, eighth, and ninth grades. . . . You will observe that we are becoming more rigid as to electives in seventh, eighth, and ninth grades. We are driven to that position by observing the results of the standardized tests in seventh, eighth, and ninth grades in buildings now organized on the departmental plan with the results obtained in buildings where each subject is taught by a special teacher and where a greater number of electives is allowed.

JACKSON, MICHIGAN

In 1914, the program of studies shown on page 299 was arranged by Superintendent Marsh for the intermediate schools of Jackson, Michigan.

This tentative program had the following unique features:

- (1) The broad scope of range of offerings presented.
- (2) The degree of flexibility of administration provided.
- (3) The unusually large number of weekly recitation periods (twenty-three to thirty-two permitted to pupils).
- (4) The granting of credit for special work, meaning thereby "special instruction out of school during the school term in vocal music, piano, violin, drawing, or painting."

THE JACKSON PROGRAM OF STUDIES FOR 1914

SEVENTH GRADE	EIGHTH GRADE	NINTH GRADE
<i>Required</i>	<i>Required</i>	<i>Required</i>
English 5	English 5	English 5
Arithmetic 5	Arithmetic 5	General Mathematics or Commercial Arithmetic 3
Geog. 7 B, U. S. His- tory 7 A 3	U. S. History 3	Civics 2
Physical Training . 2	Physical Training . 2	Physical Training . 2
Woodworking or Cooking and Serv- ing 2		
Special	Special	Special
<i>Select 6 to 10 units</i>	<i>Select 8 to 14 units</i>	<i>Select 12 to 20 units</i>
Spelling ¹ 1	Physiology 2	Oral English 2
Penmanship ¹ 1		
Drawing 2	Drawing 2	Drawing 2
Music 1	Music 1	Music 1
German 5	German 5	German 5
Latin 5	Latin 5	Latin 5
Printing 3	Workshop, Mech. . 5	Workshop, Mech. Drawing 5
	Drawing 5	Printing, Bookbind- ing 5
		Sewing, Millinery . 5
Sewing 3	Domestic Science and Arts 5	Household Manage- ment 2
Bookkeeping 5	Typewriting 5	Bookkeeping, Office Practice 5
		Stenography, Type- writing 5
General Science . . . 3	Elementary Agri- culture 3	Agricultural Botany . 5
Gardening 2	Poultry Raising . . 2	Ornamental Planting . 2
Required units 17	Required units 15	Required units 12
Selected units 6 to 10	Selected units 8 to 14	Selected units 12 to 20
Total 23 to 27	Total 23 to 29	Total 24 to 32

Summary: Required units, 44; selected, 26 to 33; total, 70 to 88.

¹ Spelling and penmanship required of all pupils until proficient.

- (5) The introduction of a course in general science in the seventh grade.
- (6) The prescription of two periods in physical training each year.
- (7) The introduction of commercial work as early as the seventh grade.
- (8) The introduction of elementary agriculture and poultry raising in the eighth grade — a particularly interesting innovation considering the fact that Jackson was a city of more than 40,000 population, and drew few pupils into the seventh grade from the country districts.

In 1919, a new program was put into effect, as follows :

THE JACKSON PROGRAM OF STUDIES FOR 1919

Required

SEVENTH GRADE	22 POINTS	EIGHTH GRADE	18 POINTS	NINTH GRADE	15 POINTS
English	7	English	7	English	5
General		General		Algebra or	
Mathematics .	5	Mathematics .	3	Commercial	
Music	1			Arithmetic . .	5
History of U. S. .	3	History of U. S. .	3	Community	
Physical Training	2	Physical Training		Civics	3
Shopwork or		and Hygiene .	2	Physical Training	2
Cooking . . .	2	Elementary			
Arts and Crafts .	2	Science . . .	3		

Elective

SEVENTH GRADE		2-7 POINTS	EIGHTH GRADE		6-11 POINTS	NINTH GRADE		10-15 POINTS
			Music	1		Music	1	
			Arts and Crafts .	2		Arts and Crafts .	2	
Latin	5		Latin	5		Latin	5	
French	5		French	5		French	5	
Spanish	5		Spanish	5		Spanish	5	
			Sewing	2		Dressmaking .	2	
			Cooking	2		Advanced Cook- ing, $\frac{1}{2}$	3	
						Household		
Printing	2		Printing	2		Management, $\frac{1}{2}$	2	
			Shopwork . . .	3		Shopwork . . .	5	
			Mechanical			Mechanical		
			Drawing . . .	2		Drawing . . .	3	
			Business Methods	2		Bookkeeping .	5	
			Typewriting . .	1		Typewriting . .	2 $\frac{1}{2}$	
Penmanship . . .	2		Penmanship . .	1		Stenography . .	5	
Agriculture and Gardening . . .	2		Agriculture and Gardening . . .	2		Experimental		
						Botany . . .	5	
						General Science .	3	
Required	22		Required	18		Required	15	
Elective	2 to 7		Elective	6 to 11		Elective	10 to 15	
Total	24 to 29		Total	24 to 29		Total	25 to 30	

Summary: Required points, 55; elective, 18 to 33; total, 73 to 88.

The number in column at right of each subject above represents the number of points of credit assigned to the subject when pursued for a year.

Pupils taking maximum number of periods of work are able to complete the intermediate school course in two and one half years.

Penmanship required of all pupils till proficient.

In the five years that had elapsed between the date of the first program and the second, experience, which alone gives wisdom in these matters, had caused the Jackson administrators to make certain changes in the Jackson plan:

- (1) English is now given seven periods a week in the seventh and eighth grades.

- (2) General mathematics has taken the place of arithmetic in both these grades.
- (3) Elementary science is transferred from an elective study of the seventh grade to a required one in the eighth grade.
- (4) The units prescribed are five more in the seventh grade, and three more in the eighth and ninth grades.

MENOMINEE, MICHIGAN

The difference between the Menominee program of studies and the program followed by Jackson are striking. Jackson provides a wide range of studies in each grade and encourages "browsing." Menominee offers few subjects and prescribes most of them.

COURSES OF STUDY

MENOMINEE JUNIOR HIGH SCHOOL (1920-1921)

SEVENTH GRADE	
<i>Required Subjects (20 periods per week)</i>	<i>Elective Subjects (5 periods per week) (Elect one)</i>
English 5	Mathematics and Science . . . 5
Geography and History . . . 5	Elementary Business Arithmetic 5
Manual Training (Boys) . . . 5	
Household Arts (Girls) . . . 5	
Physical Training 4	
Music 1	
EIGHTH GRADE	
<i>Required Subjects (20 periods per week)</i>	<i>Elective Subjects (5 periods per week) (Elect one)</i>
English 5	Mathematics and Science . . . 5
Geography and History . . . 5	French 1 5
Manual Training (Boys) . . . 5	Business Arithmetic and Book-
Household Arts (Girls) . . . 5	keeping 5
Physical Training 4	
Music 1	

NINTH GRADE

<i>Required Subjects (15 periods per week)</i>		<i>Elective Subjects (10 periods per week)</i>	
English	5	Industrial Geography and Civics	5
Manual Training (Boys)	5	Vocational Mathematics	5
Household Arts (Girls)	5	Typewriting and Business	
Physical Training	4	English	5
Music	1	Science and Mathematics	5
		Latin 1	5
		French 1	5

NOTE. The parent is asked to select one subject from two elective subjects in the seventh grade, one subject from three elective subjects in the eighth grade, and two subjects from six elective subjects in the ninth grade. If in doubt as to what subject your child should take, we recommend Mathematics and Science in the seventh and eighth grades.

The following statement from the Menominee Bulletin also bears upon the program :

LIBRARY INSTRUCTION

A course of instruction throughout the junior and senior high school years is given by the high school librarian in connection with the English courses.

The purpose : to acquaint the pupils with the outward routine of libraries so that they may be independent in their use of any library.

The course covers 10 thirty-minute periods each year.

Seventh year. Classification, use of dictionary.

Eighth year. Use of card catalogue and reference books.

Ninth year. Classification, magazines.

Tenth year. Use of reference books, Readers' Guide.

Eleventh year. On making a bibliography.

Twelfth year. Evaluation of books.

KALAMAZOO, MICHIGAN

Kalamazoo, Michigan, is another city that began a reorganization of its schools at a rather early date. The follow-

ing is the program of studies for the year 1921-1922. A single curriculum, with a few electives, is provided for the seventh and eighth grades, but in the ninth grade four differentiated curricula are outlined.

KALAMAZOO PROGRAM OF STUDIES

SEVENTH GRADE	RECITA- TIONS PER WEEK	POINTS CREDIT	EIGHTH GRADE	RECITA- TIONS PER WEEK	POINTS CREDIT
REQUIRED			REQUIRED		
English . .	5	5	English . .	5	5
Arithmetic .	5	5	Algebra . .	4	4
History . .	3	3	History and Community		
Geography .	3	3	Civics . .	5	5
General Science	3	3	Physical Edu- cation and		
Physical Edu- cation and			Hygiene .	3	2
Hygiene .	3	2	† Penmanship	2	1
† Penmanship	2	1	Music or . .	2	1
ELECTIVE			Drawing . .	2	1
(Choose 3 points credit)			ELECTIVE		
Carpentry . .	*2	2	(Choose 7 or 8 points credit)		
Cooking . .	*2	2	General		
Music . . .	2	1	Science . .	3	3
Drawing . .	2	1	‡ Latin . .	5	5
			§ Typewriting	4	2
			Mechanical		
			Drawing .	*2	2
			Cabinet Mak- ing . . .	*2	2
			Cooking . .	*2	2
			Sewing . .	*2	2

* Double periods.

† Student excused from Penmanship when he attains class standard.

‡ May be elected only on recommendation of Junior High faculty.

§ Offered at Lincoln Junior High (Frank Street) and Portage Street only.

NINTH GRADE ACADEMIC COURSE

This course is designed to meet the needs of those who are intending to take a literary course in college or the university.

	RECITA- TIONS PER WEEK	POINTS CREDIT		RECITA- TIONS PER WEEK	POINTS CREDIT
REQUIRED			General Art .	*5	5
English . .	5	5	Mechanical		
Algebra . .	5	5	Drawing .	*5	5
Physical Edu- cation . .			Wood Work	*5	5
ELECTIVES			Clothing and Textiles .	*5	5
(Choose ten points) . .			Music . . .	5	5
Early European History . .	5	5	Typewriting for those who took type- writing in the 8th grade	*5	5
Latin . . .	5	5			
Physical Geog.	5	5			
Bookkeeping .	*5	5			

* Double periods.

NINTH GRADE TECHNICAL COURSE

The Boys' Technical Course is designed to meet the requirements for entrance to Technical or Engineering Colleges and also to fit young men for work in the industries, in case they do not desire to take up a college course.

	RECITA- TIONS PER WEEK	POINTS CREDIT		RECITA- TIONS PER WEEK	POINTS CREDIT
English . .	5	5	Physical Ge- ography or	5	5
Algebra . .	5	5	Early Euro- pean History	5	5
Wood Work . (1st semester)	*5	5	Mechanical Drawing .	*5	5
Pattern Mak- ing . . . (2d semester)	*5	5	Physical Edu- cation		

* Double periods. Mechanical Drawing and Shop subjects alternate through the entire year. Mechanical Drawing comes three times one week and Shop twice — the next week the order is reversed, etc.

NINTH GRADE COMMERCIAL COURSE

Commercial education has passed beyond the stage in which its vocational value can be questioned — it is no longer an experiment. This course is planned not only to train boys and girls as bookkeepers, stenographers, and typists, but for citizenship. While accuracy and rapidity are emphasized, honesty, morality, and other essentials for success form an important part of the course.

	RECITA- TIONS PER WEEK	POINTS CREDIT		RECITA- TIONS PER WEEK	POINTS CREDIT
REQUIRED			Physical Ge-		
Bookkeeping			ography	5	5
and Arith-			Latin	5	5
metic	*5	5	† Typewriting	*5	5
English	5	5	General Art	*5	5
Physical Edu-			Mechanical		
cation			Drawing	*5	5
ELECTIVE			Wood Work	*5	5
(Choose 10			Clothing and		
points credit)			Textiles	*5	5
Algebra	5	5	Music	5	5
Early European					
History	5	5			

* Double periods.

† For those who took Typewriting in the 8th grade.

HOUSEHOLD ARTS COURSE

The course in Household Arts is offered especially for girls who are not planning to enter college. It aims to fit a girl for good homemaking and good citizenship. Emphasis is placed upon such work as Sewing, Cooking, Millinery, Household Management, and Art — Fine, Manual, or Commercial, but practical work in the academic branches of English, History, Mathematics, and Science is included.

The course is designed further, to give girls a training upon which to base a choice for future vocation outside the home, or with proper electives, to enter a higher technical institution, if desired.

REQUIRED	RECITA- TIONS PER WEEK	POINTS CREDIT	ELECTIVE (5 points credit)	RECITA- TIONS PER WEEK	POINTS CREDIT
English	5	5	Physical Ge-		
Bookkeeping	*5	5	ography	5	5
Sewing and			Music	5	5
Textiles	*5	5	Early Euro-		
Physical Edu-			pean History	5	5
cation			History	5	5
			Algebra	5	5
			General Art	5	5

* Double periods.

The following features of the Kalamazoo program are particularly interesting:

- (1) General science is prescribed in the seventh grade.
- (2) Geography and history are each given three periods throughout the entire seventh year.
- (3) Manual arts and household arts, music and drawing are nominally elective in the seventh grade, but the list of electives is so limited that manual training (for boys) and household arts (for girls), together with either music or drawing, become virtually prescribed subjects.
- (4) Algebra is a prescribed subject in the eighth grade.
- (5) Latin is the only foreign language offered below the ninth grade.
- (6) A wide range of elective subjects is provided in each curriculum of the ninth grade.

DETROIT, MICHIGAN

Ten years ago, the educational system of Detroit was re-organized according to the six-six plan, and several large high schools were developed. After this plan had been in

operation for a number of years, the administrative staff came to the conclusion that the six-six plan was unsuitable for Detroit and that differentiated schools organized according to the junior high school plan would better serve the needs of the community. It was held that the old six-six plan had failed to adjust properly the position of the seventh and eighth-grade pupils, and it was pointed out that the pupils of this age, when grouped with large numbers of older boys and girls, either are lost to view in the general enrollment or by forming separate small groups automatically place themselves out of reach of the full current of the school's socializing influence.

Detroit, with characteristic energy and determination, then adopted the junior high school plan, segregating the intermediate grades and reorganizing the program of studies and the collateral activities pertaining to those grades in accordance with the best scientific theories and methods of secondary school education. Funds were voted to meet the material needs of reorganization and extensive building operations were begun. Today, Detroit has one of the best educational systems in the United States and offers boys and girls of all types and classes educational opportunities that are almost perfect.

Concerning the new policy, Charles L. Spain, deputy superintendent, who is in charge of secondary education at Detroit, says :

In September, 1919, the authorities in control of the Detroit school system adopted an educational policy which contemplates the ultimate segregation of the first six grades of the elementary schools in platoon schools, and the training of all pupils of the seventh, eighth, and ninth grades in large intermediate schools specifically organized to meet the educational needs of pupils of adolescent years.

This far-reaching educational program, which is well on its way to realization, was inaugurated only after the most exhaustive

consideration and study on the part of those responsible for educational leadership in the Detroit school system. It rests, we believe, on a sound educational philosophy. It embodies, in a concrete way, the results of the best experience and thought of the past, combined with the results of the latest studies and research in the fields of psychology, sociology, and school administration. The ideals which underlie this program are social rather than academic. It is conceived that education should be of that type which will best achieve the purposes of a democracy. This program is based upon the theory that "the purpose of democracy is so to organize society that each person may develop his personality primarily through activities designed for the well-being of his fellow members, and of society as a whole." . . .

The program of studies as tentatively outlined for the Detroit intermediate schools is a socialized program. . . . It is designed to contribute to the great social objectives of education :

- (1) To provide for the present and future health of the pupil.
- (2) To continue training in the fundamental processes.
- (3) To train pupils in their social-civic duties—worthy home membership, citizenship, and ethical character.
- (4) To train future citizens to use their leisure time worthily.
- (5) To train pupils for vocational life.

. . . While the social aims lie behind the entire program and organization of this school, certain features are specifically intended to realize these aims :

- (1) The social sciences are made the core of the curriculum rather than the languages. This phase of instruction is emphasized throughout the three years.
- (2) The auditorium periods are planned to bring the pupils together under conditions which will make them conscious of their social relationships.
- (3) This school will give much attention to extra-curricular activities — clubs, societies, and various coöperative groups. Boy scout work for boys and similar group work for girls, will play an important part.
- (4) Pupil participation in school activities and control will be encouraged.

The following program of studies shows the distribution of hours in the Detroit scheme. The plan contemplates

sixty-minute class periods for all subjects, a six-hour school day, supervised study, semi-departmentalized teaching, and promotion by subject semi-annually.

DETROIT PROGRAM OF STUDIES

	SEVENTH GRADE		EIGHTH GRADE				NINTH GRADE					
			Genl. Tech. Coml.				Genl. Tech. Coml.				Industrial	
	B	A	Boys		Girls		Boys		Girls		Boys	Girls
Health	5	5	5	5	5	5	5	5	5	5	3	5
Social Science	5	5	5	5	5	5	5	5	5	5		2
English	5	4	4	4	4	4	4	4	4	4	3	3
Mathematics	4	4	3	3	2	2	3	3	2		3	
General Science	3	2	2	2	2	2	2	2	2	2	2	1
Auditorium	2	2	2	2	2	2	2	2	2	2	2	2
Music	1	1	1		1	1	1		1	1		1
Art and Design	1	1	1	1	2	1	1		2	1		1
Foreign Language			5				5					
Cooking (Girls)	2	3	1		3	1	1		3		} 15	
Sewing (Girls)	2	3	1		3	1	1		3			
Household Science (Girls)					1				1			
Shops (Boys)	3	5	1	6		1	1	6			15	
Mech. Drawing (Boys)	1	1	1	2		1	1	3			2	
Bookkeeping										5		
Business Practice						5				1		
Statistics										2		
Typewriting										2		
Penmanship						1						
Totals ¹	30	30	30	30	30	30	30	30	30	30	30	30

No differentiation is provided for in the seventh grade except in so far as offering shop work and mechanical drawing to the boys, and home economics to the girls constitutes differentiation. There are no electives in the seventh grade, but a wide variety of curricular experience is prescribed for all pupils. In vocational subjects this variety is greater in 7 A than in 7 B.

¹ Totals corrected for inclusion in column of both boys' and girls' special work.

EIGHTH AND NINTH GRADES

In the eighth and ninth grades, the work is divided into four curricula. It is planned at the beginning of the eighth grade to begin a rough differentiation among pupils, upon the basis of work done in the seventh grade and upon the results of the study of each individual case by the educational and vocational counselor. Under guidance, the pupil is here allowed the choice of:

- (1) A general curriculum, intended for pupils who will enter the senior high school.
- (2) A technical curriculum, designed for those boys who will probably proceed to the vocational high school or who will enter industry directly from the intermediate school.
- (3) A technical curriculum designed for girls who probably will not enter high school, but will go directly into industry.
- (4) A commercial curriculum designed for pupils who will probably become office workers.

All the work in each curriculum is prescribed. There are no electives within a curriculum, except that within the vocational subjects, a choice is allowed. The traditional subjects and health education are held constant, or nearly so, as in the case of mathematics, throughout all curricula, the chief variation coming in the vocational subjects and in the inclusion or omission of foreign languages.

SMITH-HUGHES CLASSES

. . . The industrial curriculum conforms to the requirements necessary for receiving national and state aid under the Smith-Hughes law, and is for students:

- (1) Who are of such character as to be better able to profit by industrial work than by the regular work of grades seven, eight, and nine, whether or not they have finished the elementary work usually prescribed for entrance to the intermediate school.
- (2) Students who for various reasons may be able to remain only a short time in school and who need short, intensive courses of training before entering industry.

PERCENTAGE DISTRIBUTION

The following table shows the percentage distribution of curricular time among the various departments of instruction:

	SEVENTH GRADE		EIGHTH GRADE				NINTH GRADE					
			Genl.	Technical		Coml.	Genl.	Technical		Coml.	Industrial	
	B	A		Boys	Girls			Boys	Girls		Boys	Girls
Health . . .	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	10.0	16.6
Auditorium .	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
Social Science	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6		6.6
Exact Science	23.3	20.0	16.6	16.6	13.3	13.3	16.6	16.6	13.3	6.6	16.6	3.3
Languages . .	16.6	13.3	30.0	13.3	13.3	13.3	30.0	13.3	13.3	13.3	10.0	10.0
Vocational . .	13.3	20.0	6.6	26.6	23.3	26.6	6.6	30.0	23.3	33.3	56.6	50.0
Fine Arts . .	6.6	6.6	6.6	3.3	10.0	6.6	6.6		10.0	6.6	6.6	6.6
	100	100	100	100	100	100	100	100	100	100	100	100

Health. Gymnasium work, Hygiene, Safety Education.

Auditorium. The Centralizing and Integrating Curricular Activity of the School.

Social Science. History, Civics, Elementary Economics, and Sociology.

Exact Science. Mathematics, General Science.

Languages. English, Foreign Language.

Vocational. Shops, Mechanical Drawing, Home Economics, Commercial.

Fine Arts. Art and Design, Music.

. . . the table above will show that to the fundamentals — English, mathematics, history, and civics — which are recognized as basic subjects in elementary education, approximately half the time in the intermediate school is given. The pupils' health program will occupy about one sixth of the time. In the vocational course, approximately one third of the time is given to vocational work, while, in the general course, the vocational work is reduced to a minimum, and more time is given to the fundamentals and the languages. Every pupil who finishes the intermediate course will have had ample opportunity for training in English, history, civics, and mathematics; will have had time every day for physical development; will have had a brief contact with music, art, and general science, and will have had a liberal portion of time to try himself out vocationally.

BUFFALO, NEW YORK

Buffalo, like Detroit, has given great attention to the problems of secondary education and has lately authorized the construction of twelve junior high school buildings of the most approved design.

Concerning the educational policy of Buffalo in regard to these schools, Superintendent Hartwell says:

It is the purpose so to locate the twelve junior high schools throughout the city that no pupil in the seventh, eighth, or ninth grades will reside more than a mile from the school.

The schools will operate on a two-session plan, having in mind that most of the pupils attending will go home for their midday meal.

The schools will provide departmentalized work; promotion by subject rather than by grade; an adaptation of educational method to the special needs of adolescence; and an extensive program of pre-vocational training. Sixty minutes daily for every boy and girl in attendance will be allowed for physical education, including regular gymnasium work, games, physical examinations, and corrective exercises. The physical development and progress of the pupils in these schools will receive the same careful attention that is given to their mental progress.

There will be a vocational guidance department in each school, with a trained adviser for the boys and another for work with the girls. It is planned to have a wide variety of try-out courses to which the pupils of these schools will be exposed for the purpose of endeavoring to discover their natural tastes and aptitudes.

Each classroom is a laboratory in itself. Classrooms are especially designed for each subject with reference books, maps, and other necessary equipment immediately at hand.

The dominating ideal and purpose of the school is to teach pupils how to study rather than to hear recitations. Home work will not be required, except possibly in the languages or in one or two electives in the ninth grade.

The class period as now planned will be sixty minutes in length. A teacher may divide this time as she sees fit, and there will be no formal division into study and recitation periods. The purpose of each class period is to teach children how to prepare a lesson, and the purpose of the school is to provide an ideal environment in which the pupils, with their necessary equipment at hand and with an instructor intelligently to direct their work, may be given every possible assistance.

Music will receive a larger place than it has hitherto been accorded. The music of the assembly period will be for the pleasure and joy that comes from singing. Special provision will be made for the musically inclined and the talented pupil.

Thirty minutes daily will be allowed for an assembly period. This time will afford opportunity for community singing, general student activities, lectures, concerts, and demonstrations. Much of the assembly work will be under the direction of the pupils themselves, who will thereby have an opportunity to develop responsi-

bility in the organization of assembly programs. The assembly period will also afford the time for student club activities.

No pupil in the seventh grade will have more than three book subjects a day, and no pupil in the eighth or ninth grades will have more than four.

The school day for such a program as is contemplated will probably be six and one half hours in length. Every pupil will be busy every one of the periods, three or four with academic subjects and the remainder of the day either in the laboratory, shop, studio, gymnasium, or commercial department. It is planned that each teacher shall have four classes a day with two free periods, in which time she will be expected to correct all papers and make systematic preparation for the next day's work. When she leaves the building she will be through for the day.

Regular school activities, such as debating, dramatization, glee club, orchestra, etc., will be amplified to the fullest possible extent, but all of these activities will be in connection with the regular daily work, not in addition or in interruption thereof.¹

BUFFALO PROGRAM OF STUDIES

SEVENTH GRADE		EIGHTH GRADE	
English	5	English	5
Gymnasium	5	Gymnasium	5
Geography	3	History	3
History	2	Civics	2
Arithmetic	4	Shop	5
Shop	5	Art	2
Music	2	Music	2
Science	2	Science	2
Art	2		
		<i>1 Option</i>	
		Language	4
		Commercial subjects	4
		Shop	4

¹ Hartwell, E. C., "The Educational Program for Buffalo's Intermediate School," 1920.

NINTH GRADE

<i>Academic</i>		<i>Commercial</i>	
English	5	English	5
Gymnasium	5	Gymnasium	5
Algebra	4	Bookkeeping	4
Science	3	Typewriting	5
Music	2	Stenography	5
Art	2	Art	2
Shop	3	Music	2
		Office Practice	2

2 Options

Language	3
History	3
Typewriting	3
Shop	3
Music	3

It will be noted that the Buffalo plan of administration contemplates definitely accounting for each pupil's time during each period of the school day.

To further this end, Buffalo has worked out the time schedule presented on pages 316-317.

TIME SCHEDULE, BUFFALO

SEVENTH GRADE ACADEMIC

PERIOD	TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
I	8:30-9	Auditorium	Club	Home Room	Auditorium	Club
II	9:00-10	English	English	English	English	English
III	10:00-11	Gymnasium	Gymnasium	Gymnasium	Gymnasium	Gymnasium
IV	11:00-12	Geography	History	Geography	History	Geography
V	1:00-2	Arithmetic	Arithmetic	Arithmetic	Arithmetic	Science
VI	2:00-3	Shop	Shop	Shop	Shop	Shop
	3:00-4	Art	Art	Science	Music	Music

EIGHTH GRADE ACADEMIC

PERIOD	TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
I	8:30-9	Auditorium	Club	Home Room	Auditorium	Club
II	9:00-10	English	English	English	English	English
III	10:00-11	Shop	Shop	Shop	Shop	Shop
IV	11:00-12	History	Civics	History	Civics	History
V	1:00-2	Language	Language	Language	Science	Language
VI	2:00-3	Gymnasium	Gymnasium	Gymnasium	Gymnasium	Gymnasium
	3:00-4	Music	Music	Art	Art	Science

NINTH GRADE ACADEMIC

PERIOD	TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
I	8:30-9	Auditorium English Algebra Language Shop Science Gymnasium	Club English Algebra History Music Science Gymnasium	Home Room English Algebra Language Shop Science Gymnasium	Auditorium English Algebra History Music Art Gymnasium	Club English Language History Shop Art Gymnasium
II	9:00-10					
III	10:00-11					
IV	11:00-12					
V	1:00-2					
VI	2:00-3 3:00-4					

NINTH GRADE COMMERCIAL

PERIOD	TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
I	8:30-9	Auditorium Stenography Typewriting Art Bookkeeping Gymnasium English	Club Stenography Typewriting Art Bookkeeping Gymnasium English	Home Room Stenography Typewriting Art Bookkeeping Gymnasium English	Auditorium Stenography Typewriting Music Office Practice Gymnasium English	Club Stenography Typewriting Office Practice Bookkeeping Gymnasium English
II	9:00-10					
III	10:00-11					
IV	11:00-12					
V	1:00-2					
VI	2:00-3 3:00-4					

Three other cities that have constructed programs worth careful examination are St. Louis, Missouri; Davenport, Iowa; and Duluth, Minnesota.

ST. LOUIS, MISSOURI

BEN BLEWETT JUNIOR HIGH SCHOOL PROGRAM OF STUDIES

SEVENTH GRADE		EIGHTH GRADE (<i>Continued</i>)	
Social Study	5	Art, Music, Physical Train-	
English	5	ing)	5
General Mathematics	5	Bookkeeping, Penmanship and	
General Science	2½	Spelling	5
Music	1½	Arithmetic	5
Art	1	Shop Exercises	5
Adviser's Periods	5	Applied Mathematics	5
Practical Arts	2½	Applied Science	5
Physical Training	2½	Practical Home and Store Ex-	
Total	30	periences	5

EIGHTH GRADE		NINTH GRADE	
Social Study		Community Civics ½ }	
(United States History and		Vocations ½ }	5
Social Problems)	5	English	5
English	5	Chorus Music	2
Latin, Spanish, French, or Liter-		Physical Training	2
ature	5	Botany ½ }	
General Mathematics	5	Physical ½ }	5
General Science	5	Algebra	5
Allotments		Foreign Languages	5
(Practical Arts, Appreciation of		Manual Training	5
		Drawing (mechanical)	5
		Bookkeeping	5
		Arithmetic	3
		Penmanship	2

(1) A, B, and C sections of pupils are organized and advanced at different rates.

(2) Academic, commercial, and technical curricula are provided.

(3) The work of the seventh grade is uniform for all pupils.

DAVENPORT, IOWA

DAVENPORT PROGRAM OF STUDIES (1920)

SEVENTH GRADE	H	R	EIGHTH GRADE	H	R	NINTH GRADE	H	R
English	5	5	Mathematics	5	5	<i>Required</i>		
Arithmetic	5	5	English	4	4	English	4	4
Geography and History	5	5	Latin ¹	4	4	Music	1	2
Literature	2	2	Spelling and Penmanship	2	4	Physical Train- ing	1	2
Spelling and Penmanship	2	4	Literature	2	2	Literature	1	2
Physiology	1	1	History	5	5	<i>Elective</i> ²		
Manual Train- ing	3	3	Science	2	2	Mathematics	5	5
Home Economics	3	2	Manual Train- ing	3	3	Civics	5	5
Drawing	2	2	Home "			Science	5	5
Music	2	4	Economics	3	2	Latin	5	5
Physical Train- ing	2	4	Drawing	2	2	French	5	5
Library	1	1	Music	2	4	Typewriting	5	5
x Orchestra	1	1	Physical Train- ing	2	4	Bookkeeping	5	5
x Chorus	1	1	Library	1	1	Manual Train- ing	5	5
			x Orchestra	1	1	Home (cloth- ing)	3	3
			x Chorus	1	1	Economics (food)	3	2
						Drawing	2	2
						x Orchestra	1	1
						x Chorus	1	1

H stands for hours (60 minutes) per week.

R stands for recitations per week.

x Meet after regular school hours.

¹ On approval of the Principal, Latin may be taken instead of English and one hour of Spelling and Penmanship.

² A total of not more than 23 hours may be elected.

DULUTH, MINNESOTA

DULUTH JUNIOR HIGH SCHOOLS

SEVENTH GRADE

*Academic Course**Pre-vocational Course*

REQUIRED SUBJECTS	PERIODS PER WEEK	BOYS AND GIRLS	PERIODS PER WEEK
English	5	English	5
Arithmetic	5	Arithmetic	5
History and Geography	5	History and Geography	5
Music	2	Penmanship and Spelling	2
Drawing	2	Physical Training	2
Penmanship and Spelling	2	Music	2
Physical Training	2	Drawing	2
Shop Work or Home Training	2		
(Choose One)			
Latin	5		
French	5		

The seventh grade pre-vocational students will take two shop subjects each semester in the order in which they are offered. They are required of all pre-vocational students.

BOYS	PERIODS	WKS.	GIRLS	PERIODS	WKS.
Woodworking	10	9	Housekeeping	10	9
Wood Turning	10	9	Garment-Making	10	9
Metal Work	10	9	Physiology and Home Nursing	5	9
Physiology and Hygiene	9	9	Textiles	5	9
Printing or Forge	10	9			

EIGHTH GRADE

*Academic Course**Pre-vocational Course*¹

REQUIRED SUBJECTS	PERIODS PER WEEK	REQUIRED SUBJECTS	BOYS	GIRLS	PERIODS PER WEEK
English	5	English			5
Mathematics	5	Mathematics			5
American History and Civics	5	American History and Civics			5
Music	2	Music			2
Penmanship and Spelling	2	Drawing			2
Drawing	2	Physical Training			2
Physical Training	2	Penmanship and Spelling			2
Shop Work or Home Training	2				

¹ On advice of the Principal, students may specialize on some industrial subject.

DULUTH, MINNESOTA (*Continued*)EIGHTH GRADE (*Continued*)

<i>Academic Course</i>		<i>Pre-vocational Course</i>			
REQUIRED SUBJECTS	PERIODS PER WEEK	REQUIRED SUBJECTS	BOYS	GIRLS	PERIODS PER WEEK
(Choose one)		GIRLS			PERIODS WKS.
French	5	8B Garment Making or			8 18
Latin	5	Science			5 18
		8A Household Management			8 18
		or			
		Typewriting			5 18
		Boys			PERIODS WKS.
		8B Science and			5 18
		Typewriting			5 18
		8A Electricity or			10 18
		Printing			10 18

NINTH GRADE

<i>Academic Course</i>		<i>Industrial Course</i>			
REQUIRED SUBJECTS	PERIODS PER WEEK	REQUIRED SUBJECTS	BOYS	GIRLS	PERIODS PER WEEK
English	5	English			5
Algebra	5	European History			5
European History	5	Physical Training			2
Physical Training	2				
Drawing or Music	2	<i>Home Training (Girls)</i>			
		Costume Design			5
(Choose one)		Household Science (18 weeks)			5
Latin	5	Physiology (18 weeks)			5
French	5	Elementary Dressmaking			10
Spanish	5				
Physiography (18 weeks)	5	<i>Industrial Training (Boys)</i>			
Physiology (18 weeks)	5	Art I			5
Art	10	Mechanical Drawing (18 weeks)			10
Music	5	Machine Woodwork (18 weeks)			10
		Algebra			5

Commercial Course

REQUIRED SUBJECTS	PERIODS PER WEEK
English	5
Commercial Arithmetic	5
Physical Training	2

Those electing the following courses will take in addition the subjects listed :

Four Year Commercial Course

Algebra	5
European History	5
Drawing or Music	2

Two Year Bookkeeping Course

Bookkeeping	10
Typewriting	10

Two Year Stenography Course

Stenography	5
Typewriting	10

The Duluth program contains the following interesting features :

- (1) There are two curricula from the outset — the academic and the pre-vocational.
- (2) Freedom is given pupils to transfer from one curriculum to the other at the end of any semester.
- (3) The only electives open to seventh and eighth grade students in the academic course are French and Latin.
- (4) The only difference between the academic and pre-vocational curricula for either the seventh or eighth grade is the substitution of two shop courses each semester in the pre-vocational course for Latin or French in the academic.
- (5) No work in general science is offered, except a half-year course in the eighth grade of the pre-vocational curriculum.
- (6) European history constitutes the social science work of the ninth grade in both curricula.

SUMMARY

A partial summary of the practices found in the eleven cities mentioned above for the seventh and eighth grades, shown on pages 324 and 325, gives the tables of subjects, with the periods allowed for each.

PROPOSED PROGRAM OF STUDIES FOR JUNIOR HIGH SCHOOLS

In the light of the practices and the recommendations respecting the program of studies as given above, it seems to the writer that the following offerings might very properly find place in the typical junior high school of fairly large size. In smaller systems adjustments and omissions should doubtless be made.

I. Physical Training

1. Health instruction
2. Exercises, games, corrective work, etc.

II. Composite English

1. Oral discussions of topics lying within the interest and comprehension of pupils
2. Grammatical instruction and drill as the functioning need arises
3. Classical and contemporary literature for class study
4. Classical and contemporary literature for personal pleasure and for outside reading
5. Written composition based on interests and incidents derived from the above-mentioned activities
6. Attention to spelling and writing as needs require
7. Dramatics, public speaking, and literary contests as occasions present themselves

III. Mathematics

1. Arithmetic relating to the home, business, industry, and recreation
2. General mathematics

PROGRAMS OF ELEVEN CITIES COMPARED

SEVENTH GRADE

	Berkeley	Grand Rapids	Kalamazoo	Jackson	Menominee	Davenport	Detroit	Buffalo	St. Louis	Pasadena	Truth	Average for All	The Mode
English	5	5	5	8	5	5	4½	5	5	5	5	5.2	5
Mathematics	5	5	5	5	2½	2½	4	5	5	5	5	3.5	5
Social Studies	5	2½	3	3½	2½	2½	5	2	2½	2½	2½	2.9	2½
Geography	5	2½	3	3½	2½	2½	2½	3	2½	2½	2½	2.4	2½
General Science	5	—	3	—	—	1	—	—	—	—	—	0.9	0
Physiology	—	—	—	—	—	—	—	—	—	—	—	0.0	0
Physical Training	—	—	—	—	—	—	—	—	—	—	—	—	—
and Health	—	—	—	—	—	—	—	—	—	—	—	—	—
Practical Arts	5	2	3	2	4	4	5	5	2½	5	2	3.6	2 or 5
Penmanship	5	4	—	2	5	3	5	—	2½	—	2	3.0	2 or 5
Music	5	1	2	1	—	4	—	—	2½	—	2	1.3	0
Drawing and Art	5	2	—	2	1	4	1	2	1½	—	2	1.8	1 or 2
Electives	None	None	3 hours: carpentry (2); cooking (2); music (1); drawing (1)	Latin (5); French (5); printing (2); sewing (2); agriculture and gardening (2); penmanship (1)	Mathematics (5)	None	None	None	None	11 subjects (one choice)	Latin or French	1.6	2

PROGRAMS OF ELEVEN CITIES COMPARED

EIGHTH GRADE

	BERKELEY	GRAND RAPIDS	KALAMAZOO	JACKSON	MENOMINEE	DAVENPORT	DETROIT	BUFFALO	ST. LOUIS	PASADENA	DULUTH	AVERAGE FOR ALL	THE MODE
English	5	5	5	8	5	6	4	5	5	5	5	5.0	5
Mathematics	5	5	4	5	5	5	2½	5	5	5	5	3.3	5
Social Studies	5	5	5	2½	5	5	5	5	5	5	5	4.7	5
General Science	—	—	—	—	—	2	2	2	2	—	—	1.0	0
Physical Training	—	—	—	—	—	—	—	—	—	—	—	—	—
and Health	5	2	3	4	4	4	5	5	2	5	2	3.7	2, 4 or 5
Practical Arts	5	4	—	—	5	3	1	5	2	—	2	2.5	0, 2 or 5
Music	5	2	1	—	1	4	1	2	2	—	2	1.8	1 or 2
Drawing	5	2	1	—	—	2	1	2	2	—	2	1.1	0
Art	—	2	2	—	—	4	—	—	2	—	—	0.6	0
Penmanship	—	1	2	—	—	—	—	—	—	—	—	0.8	0
Vocations	—	—	—	—	—	—	—	—	—	—	—	0.0	0
Library	—	—	—	—	—	1	—	—	—	—	—	0.0	0
School Activities	—	—	—	—	—	—	—	—	—	—	—	0.0	0
Auditorium	—	—	—	—	—	—	2	2	—	—	—	0.0	0
Foreign Language	—	—	—	—	—	—	5	—	—	—	—	0.3	0
Electives	8 subjects	4 or 5 hours. Business arithmetic; Latin; mechanical drawing; French; Chorus or Orch.	7 or 8 hours	7-10 hours	General science (5), or mathematics (5), commercial work (5)	None	By curricula	4 hours	None	14 subjects	French or Latin	0.9	0

3. Algebra
4. Applied mathematics, adapted to local vocational interests

IV. Foreign Language

1. Introduction to language study, concerning itself with lessons about foreign language, the people using it, their history, interests, and culture
2. Latin
3. French

V. Science

1. Natural history, with special reference to the flora and fauna of the locality
2. Introductory or general science, including physiology
3. Biology

VI. History — Geography

1. Heroes of the world, being a biographical study of notable personages
2. Backgrounds of American history in Europe
3. American history, with special reference to local history
4. World's history, with special reference to the period since 1815

VII. Citizenship

1. Current events, coupled with current geographical studies
2. Current social practices, including matters relating to elementary civics, sociology, economics, political government, and vocations
3. Auditorium exercises
4. Pupil associations in clubs, societies, teams, etc.

VIII. Practical Arts

1. Try-outs
 - (a) For boys: woodwork, metal work, printing, and textiles
 - (b) For girls: foods, textiles, millinery, design

2. Intensified courses in manual and household arts
3. Pre-vocational trade instruction as local conditions demand

IX. Agricultural Arts

1. Horticulture and floriculture
2. Agricultural try-outs
 - (a) For boys: soils, stock, buildings, seeds, management
 - (b) For girls: household conveniences, decoration, sanitation, economics
3. Intensified forms of agricultural topics

X. Commercial Work

1. Bookkeeping and personal accounts
2. Commercial try-outs: business bookkeeping, stenography, typewriting, and office practice
3. Intensified forms of phases of commercial work

XI. Drawing

1. Freehand
2. Mechanical

XII. Music

1. Musical appreciation
2. Choral practice
3. Orchestra and glee club work
4. Vocal instruction
5. Instrumental instruction

XIII. Art

1. Try-outs in various forms of art: charcoal, water, and oil sketching; pottery; brass work; lettering; poster making; designing
2. Art appreciation
3. Intensified forms of art work as local conditions suggest

XIV. Morals and manners, a course dealing with conduct and the polite forms of social intercourse

CHAPTER EIGHTEEN

ADMINISTRATION

IT has previously been asserted that the perfected junior high school (as judged by present-day knowledge and experience) will consist of a body of pupils of from twelve to fifteen years of age, segregated in a separate building and presided over by a special staff; that it will provide a program of studies expanded greatly beyond the limits of the traditional seventh, eighth, and ninth grade offerings; that it will provide for the departmental organization of school work and the promotion of pupils by subjects rather than by grades; and that it will follow a well-outlined plan for supervision of study, school and vocational guidance, and proper encouragement of student collateral activities. It remains to speak of these provisions more in detail and to indicate certain administrative practices that must needs be followed.

In the first place, it is unwise for a community to attempt to reorganize its school system without making adequate preparation for so doing. Human nature is conservative. It is hostile to sudden and radical changes. Hence, no wise superintendent or principal will seek to force the reorganization of a school system at greater speed or in completer detail than his constituency considers advisable. In regard to this matter, H. P. Study of Neodesha, Kansas, after four years of experience in promoting, organizing, and administering a junior high school, says that he considers necessary the following preliminary steps:

- (1) Self-preparation on the part of the junior high school organizer or administrator himself.
- (2) The sharing of responsibility for the new movement with the school authorities.
- (3) Educating the public, giving publicity to the junior high school idea.

- (4) The selection of a corps of teachers who will constitute the very embodiment of the junior high school idea in thought and purpose.
- (5) Preliminary training of teachers in point of view and methods of procedure.¹

This is sound doctrine.

RELATION BETWEEN THE JUNIOR AND SENIOR HIGH SCHOOLS

In articulating a junior high school with the rest of the system, due care must be exercised. While it seems desirable to make the new school a unit by itself, it assuredly may not be treated as a wholly independent organization with no direct relation either to the grades above or the grades below. To permit such a plan to operate would be to invite weaknesses not dissimilar to those that characterize the traditional organization. New "gaps" in the system would be opened at the end of the sixth and ninth grades; new tendencies to conduct school as an end in itself would be likely to develop; new types of formalism would probably become established; and the inspiration that comes to teachers and pupils from contact with other portions of the school system would be lost.

On the other hand, to make the new school tributary to the senior high school — with senior high school aims predominating below the tenth grade and determining the curricula for the seventh, eighth, and ninth grades; senior high school teachers shaping the policies, methods, and standards of the junior high school; and senior high school officers controlling, directing, and supervising the activities of the younger organization, as though possessed of a divine right — will destroy whatever advantages the junior high school possesses over the traditional school.

¹ "Preliminary Steps in Organizing a Junior High School," *Educational Administration and Supervision*, Vol. 3, pages 339 *et seq.*

The ideal plan is to have a principal and a separate staff of teachers for each school, the entire teaching force to act under the guidance of an elected council of teachers presided over by the superintendent of schools and the general administrative force. In no other way can the elementary school, the junior high school, and the senior high school be kept distinct and, at the same time, coöperatively dependent.

This plan, however, is operable only in school systems of fairly large size. In small school systems and in rural communities, it is impracticable to maintain fully differentiated elementary schools, junior high schools, and senior high schools. There, the six-six plan of organization is the more advantageous, and in the six-year high school but one group of administrative officials can or should be found.

THE PROBLEM OF CREDITS

Each school of an educational system should receive pupils from the school below and unhesitatingly give full faith and credit to their records as furnished by such lower school. Ordinarily, completion of the sixth grade in the elementary school should automatically promote a pupil to the junior high school. Likewise the completion of a given number and kind of units of work in the junior high school should operate to admit the pupil, with full credit, to the senior high school. In exceptional cases, promotions or demotions from one school to another should be made without regard to grades.

To facilitate these transfers, the junior high school and the senior high school should employ the same method of accrediting the work of pupils. If semester courses be the standard, then to the thirty-two credits usually required for graduation from the four-year high school should be added sixteen other credits to be gained in the seventh and eighth

grades. Dividing the forty-eight credits thus obtained equally between the two schools would give twenty-four to each one. On the other hand, if units, or year courses, be the standard, the sum total to be earned in six years would equal twenty-four, of which twelve might properly be given by the junior high school and twelve by the senior high school. In either case, whether credits or units are adopted, the senior high school should arrange a three-year program, accepting recommendations and credentials from the junior school at their full value, and making its own prescriptions relate solely to the tenth, eleventh, and twelfth grades.

The plan of allotting five periods a week to each and every subject finds no support in reform practice, in logic, or in wisdom. Certain subjects can best be treated in fewer than five class meetings a week; others may be scheduled oftener. The point or hour system of accrediting the work of pupils recognizes this fact and provides for the practical application of it. In the opinion of the present writer, it provides a far better method than either the unit or the semester credit systems referred to above. Under the point system, any subject requiring out-of-class preparation and taught once a week for a semester yields one point credit; if taught for two periods a week, it yields two points, or two hours, credit; and so on.

That the development of junior high schools is more or less dependent upon the encouragement afforded it by the senior high school, and that this encouragement will, to a considerable extent, be determined by the attitude of the colleges and universities in recognizing credits earned in the junior high school, seems very probable. That such encouragement is, in places, being given to the reform movement is demonstrable. For illustration, consider the following resolutions passed by the Board of Regents of the University of Michigan as early as 1914:

Resolved:

(1) That school authorities be encouraged to incorporate the seventh and eighth grades of the elementary school as an integral part of the high school system, forming a six-year system.

(2) That school authorities be recommended to organize the six-year high school system into a junior high school of three years and a senior high school of three years as soon as local conditions will admit.

(3) That graduates of the six-year high school course be required to gain during the last three years, at least eight of the fifteen units required for admission, two of which units shall be obtained during the senior year.

(4) That graduates of six-year high school courses be permitted to apply for university credit on examination.

Since, in accordance with these resolutions, seven of the fifteen units required for admission may be gained below the tenth grade, and since four units are ordinarily gained in the ninth grade, it appears that the University of Michigan has agreed to accept for admission three units gained in the seventh and eighth grades.

The University of Chicago has adopted a different method of dealing with credits gained in the six-year system. This University accepts work done in the junior high school provided it has previously been accepted and tested by the authorities of the senior high school.

The North Central Association of Colleges and Secondary Schools follows, in general, the University of Chicago plan.

Nevertheless, the articulation of the junior high school with the senior high school is not perfect, and as yet the adjustment of credits earned in the two schools does not rest on a wholly satisfactory basis. If pupils in the junior high school are to be permitted to pursue more than four subjects, or twenty hours of classroom work, each year, then it is evident that a pupil may finish the lower school and enter the upper school with considerably more than twelve units, or

sixty points, of credit. The question is: What recognition should the senior high school give to the extra units or points gained in the school below? If full credit is allowed, pupils who have earned extra credits will be in a position to complete the senior high school work and be ready for graduation in two and one half, two, or even one and one half years after leaving the junior high school. Arthur Gould, Assistant Superintendent of Los Angeles schools, writing in the *School Review*, June, 1920, presents a table showing the scope of the problem. Of 564 pupils who completed the Los Angeles junior high school course in 1919, 63 per cent had earned enough credits to enter the tenth grade B. This of course is the normal, natural advancement. But 27 per cent entered the tenth grade A, and one pupil was admitted to the eleventh grade B. A like condition prevails in Detroit and, no doubt, in other large cities that have junior high schools. Respecting this situation, Mr. Gould says:

Perhaps more serious than all the other disadvantages of giving advance credit has been the effect upon the educational ideals of the pupils. They have felt that it is the purpose of the junior high school to hurry them through their school career. This has come about in a perfectly natural manner, since progress in the senior high schools is measured by credits and senior high school subjects have been given, as far as possible, in the junior high school. Measurement of progress in senior high school subjects studied in the junior high schools by credits has followed.¹

Three courses suggest themselves. One is not to allow any advance credit whatever for work done in the junior high school; another is to allow definite partial credit; and a third is to adjust credits on an individual basis, thus permitting each pupil to acquire as many points as he can earn and to complete his senior high school course in three additional years (or less) as his ability and efforts determine.

¹ "The Intermediate Schools of Los Angeles," *op. cit.*, pages 419 *et seq.*

Of course the attitude of the colleges and universities has much to do with the problem. As before stated, some universities have already adopted liberal policies respecting the matter; others have not. In the estimation of Professor Judd, a staunch advocate of the junior high school, the chief reason for the slow development of the reforms in secondary education is the obstructive policy of high school and college men in respect to this very point. Neither group seems willing to depart from tradition. The high school men, for the most part, wish to control completely the four years' work that has heretofore been under their domination, and are not willing to allow the ninth grade work to be reorganized, nor do they wish to give high school credit for more than a small fraction of the work done in the seventh and eighth grades of the junior high school. Similarly, the colleges, for the most part, have refused or neglected to adopt liberal measures.

That both high school and college men are disposed not to give any great amount of independence to the junior high school or to restrict their own spheres of action to the three upper grades is revealed by two resolutions presented at a conference of members of the North Central Association in March, 1922. The two resolutions were offered, in turn, by Professor Judd. The first one reads:

Resolved:

That this Conference recommend to the North Central Association that the colleges of the Association be urged to develop as soon as possible a plan of admission that will give official recognition to the work done in the seventh and eighth grades.¹

This resolution failed. The second resolution reads:

Resolved:

That this Conference recommend to the North Central Association that the colleges be requested to rewrite their entrance requirements so as to require not more than twelve units to be completed in grades ten, eleven, and twelve.

¹ Proceedings of the North Central Association, Part I, page 60, 1922.

This resolution, too, was voted down.

Despite the action or non-action of high schools, colleges, and other standardizing agencies, the evidence shows that the day is not far away when the more liberal principles suggested by Dr. Judd's resolutions must prevail.

For the most part, in the recent past, whatever credit has been allowed by the senior high school for work pursued in the junior high school has been granted on a 1:2 basis. That is, only half credit has been given for any course pursued in the seventh or eighth grades — and then only for certain specified kinds of work, such as language, general mathematics, or commercial branches. In several instances, only one third credit has been granted, and this on the understanding that the subject has been pursued throughout three semesters and frequently with the further proviso that one of these semesters must lie within the ninth grade. This, until very recently, was the custom at Los Angeles.

The reasons commonly advanced for thus reducing the term credits of the first and second years of the junior high school have been that these two grades represent a transition period in school work; that the pupils are immature and incapable of independent study; that less material is covered than in the upper grades and that consequently the educational values derived from the courses must be less.

A third factor that has often entered into the problems of adjustment and increased the difficulties of their solution is the practice in many cities of retaining the old-type eight-year elementary school and the four-year high school, while at the same time seeking to develop the entire system on the six-three-three plan of organization. Pupils who complete one of these older elementary schools and enter the ninth grade of the four-year high school must later be grouped with pupils who completed their ninth grade work in the junior high school. To unify the work of the ninth grade in both schools is not an easy matter.

But order is gradually coming out of the confusion. The old ideas concerning credits are giving way, and it seems likely that the probable outcome will be a plan to consider the points gained during the six years of the secondary school in the aggregate, to fix the number of points to be gained in the junior high school, and to prescribe a given number of points for graduation from the senior high school; or, as an alternative, to consider the junior high school complete in itself, to grant no advance credit for work done in it, and to base graduation from the senior high school solely upon the credits earned in the tenth, eleventh, and twelfth grades. Boston has recently adopted the first plan; Los Angeles and Cleveland, the second. The Boston plan is described thus:

The 100-Point Diploma Plan

Since the period of secondary school instruction has been lengthened by the inclusion of grades seven and eight, it has seemed desirable to increase correspondingly the number of points accredited for the high school diploma. As, however, grades seven and eight constitute, as it were, a transition period in which some of the work can hardly be considered as on a par with the work of the later years, it has seemed best to regard the secondary school period as consisting of five units instead of six, grades seven and eight together forming the first unit. The normal number of points to be gained in each unit is twenty. This plan has been modified somewhat as will appear below.

When the 100-point diploma plan was adopted, it seemed wise to assign twenty points as the normal credit for the work of grades seven and eight combined, and 20 points to each of the following years. It was the expectation that the work of the two years would be considered as a unit and that credits for the work would be recorded only at the end of grade eight. The original plan has been modified to the extent of assigning twenty-one points for the work of these two grades in order to give certain pupils a better chance of promotion, and also by recognizing the principle that credit should be given for all work successfully accomplished. Under the old plan the pupil might pass in the work of grade seven

and fail in that of grade eight. In the vast majority of cases he would thus lose all credit for the work of the two years in that particular subject. The good work of grade seven counted for nothing. If, however, credit is to be given for work wherever done, it becomes necessary to assign a definite number of points for the work of each particular subject in each of the two grades, seven and eight. The total number of credits has been divided, ten and one-half points being assigned to each of the two years.¹

The Los Angeles plan has been described by Miss Helen S. Watson, Assistant Superintendent of Los Angeles schools.

When our junior high schools were organized there was the feeling that we should shorten the high school course by making high school credits in the junior high school. This we have found unsatisfactory, and, beginning with February of next year, we have graduation from the regular junior high school course. Ordinarily this is three years in length, but it may be completed in two and one half years if the child is bright. The graduates of our junior high schools will then enter the B 10 class and will have before them a three-year high school course which may be shortened by the super-bright child. . . . For many pupils who are super-bright we believe in enriching the curriculum rather than shortening the course.²

The Bulletin issued by the Cleveland authorities in 1922 contains the following :

No work is carried in the junior high school with the view of senior high school credit. All work done in the junior high school is done for junior high credit. The junior high school covers the work of the seventh, eighth, and ninth years, and while some subjects formerly taught only in the senior high school are begun in the junior high school, they are regarded as meeting the requirements set up for the seventh, eighth, and ninth years. Acceleration is provided by sectioning the pupils upon the basis of ability.³

The Los Angeles and Cleveland plan is in accordance with the resolutions presented at the North Central Association

¹ School Document No. 2, page 9, Boston Public Schools, 1921.

² From a personal letter written in 1922.

³ School Bulletin, page 2.

meeting in 1922. Probably the best solution of the whole difficulty lies in the general adoption of this plan.

WEEKLY CLASS PERIODS

What should be the standard in regard to the number of weekly class periods that pupils should be permitted, or required, to undertake is, as yet, an unanswered question. Practices range from twenty periods, or less, in America to thirty-three, or more, in certain European schools. All depends upon the character of the work undertaken and the strength and ambition of the pupil. With a wide range of impressional and expressional subjects, and of studies requiring much outside preparation alternating with others requiring little preparation, it seems reasonable to believe that the number of weekly periods may safely be increased considerably beyond the old high school standard of twenty. Moreover, if credit be allowed for various kinds of general courses, such as auditorium exercises and chorus, glee, and orchestra work; and for activities that are essentially designed to develop habits of volitional response, such as athletics, club work, debating, and managerial positions connected with the school paper, the cafeteria, the commercial offices, and like projects; then, certainly, the number of weekly periods may properly be extended to thirty, thirty-five, or more. To have each hour of the school day fully accounted for seems to be desirable, and to give credit for each hour's activity is a wise course to pursue.

NUMBER AND LENGTH OF PERIODS IN SCHOOL DAY

The number of periods in the ideal school day and the length of each period are points that are still unsettled. If the school makes provision for a variety of activities — intellectual, emotional, and volitional — then a long school day is not only defensible but desirable. Nothing is more

destructive of physical, mental, and moral well-being than idleness, unregulated practices, and indiscriminate associations. If today the proud boast of America is that it sends the "whole boy" to school, then the "whole boy" needs to be educated. For the accomplishment of this purpose, not only a series of years, but a relatively long school day throughout those years, will be needed.

The accepted norm for the duration of class periods in the traditional high school is forty minutes. In the elementary school, periods range from ten minutes to thirty-five. But of late, in many places, it has been held that the most economical, suitable, and effective class period is one of sixty minutes. Such periods permit of ample time for lesson assignments, lesson study under supervision, and lesson discussions and testings. A longer period tends to invite waste of efforts; a shorter period tends to hurry the procedure, to embarrass the teacher and pupils alike, and thus to render the lesson incomplete and ineffective.

SUPERVISION OF STUDY

Few pupils know how to study effectively. Teaching pupils how to study is, therefore, one of the duties — if not the chief duty — of teachers. It must be acknowledged, however, that it is a duty that is seldom well performed.

Various schemes for the supervision of study have been proposed. The large study hall, the after school conference, the unprepared recitation period, the divided class period, the double period, and other plans have been tried. Each has its merits and defects. That the junior high school years are most appropriate ones in which to carry on systematic supervised study seems to be the consensus of opinion. But that equal stress should be given to the supervision of study in all types of school work, throughout each of the three years of the junior high school, seems both un-

necessary and unwise. Certainly, to assume that a daily or weekly scheme of supervised study must extend throughout the entire six years of the reorganized secondary school is absurd. Pupils should be expected and required to advance independently and alone. Supervision of study should therefore be progressively diminished. Nevertheless, the junior high school period must be regarded as the period *par excellence* for teaching pupils how to study. The chief difficulty is that teachers either do not know how to teach pupils to study or, knowing how, fail to put their knowledge into practice. The danger lies in suggesting too much or too little, in carrying most of the burden for the pupil or in carrying none.

Moreover, wherever supervised study is provided it is questionable whether teachers ought, in most instances, to be required to devote definite set portions of the class period to the task. In lieu thereof it seems wiser ordinarily to permit each one to utilize the class meeting as the circumstances of the occasion suggest. Certainly the two most serious faults to be found among American teachers are the failure to knit the entire mass of the day's thought material into a compact unity before dismissing it from mind, and, second, the failure to make the new lesson assignment clear, definite, and truly vital. Classroom recitations and discussions are necessarily fragmentary, disjointed, and unsystematized. It is, however, the chief function of the teacher to bring order and permanency of form out of the chaos of impressions, ideas, and responses. In the ideal recitation period each pupil contributes his quota of knowledge, suggestion, interpretation, opinion, and thought, and shares with his fellows and with the teacher the responsibility of developing the topic that is before them — of clarifying the problem that is involved and of advancing it steadily to the point of solution. It is the business of the teacher

not only to guide and direct the class activities, but also to supplement, illustrate, expound, and, above all else, to unify. Hence the need for systematic summarizing of accomplishments in each class period is apparent.

In like manner, ample time should be taken for assigning the new lesson. How many minutes should be devoted to this part of the work the particular circumstances of the hour must determine. Rarely is enough time or attention given to the task. Moreover, it is certain that the greater the thought and care that are employed in this manner, the less labored and more satisfactory will be the recitation work which follows later. Vague, generalized, formal assignments of lessons stamp the teacher as inefficient more positively, perhaps, than any other one test of merit. Yet the fault is fairly common among all teachers. Instead of imitating the successful business man who advertises his goods, makes his show windows attractive, and draws custom by the sheer force of stimulated curiosity, teachers are prone to let the material for study lie embedded in dull textbooks, unmarked by any distinguishing placard, and undiscoverable except as blind chance leads the pupil to begin scratching the surface about it. In consequence of this unpedagogical mode of procedure pupils not infrequently come away from classes with little notion of what the real problem is which is set them, wherein lie the most significant aspects of it, what difficulties of attack beset them, and how they should most effectively proceed to master the work. The result is unintelligent effort, waste of time, and moral discouragement on the part of many pupils. A further result is failure to comprehend the thought in class the following day, lack of responsiveness, irritation with the teacher, growing dislike for, and indifference to, school work in general, and finally withdrawal from further attempts at any systematic education. It is certain

that pupils frequently have failed to meet the standards because they have not known clearly what was expected of them, nor how to proceed to the undertaking. No pattern was set before them, no device for whetting the interest was employed with them, no motive for exerting their best efforts was instilled into them. They merely failed in their tasks because others who were supposed to know what was best to do had failed in their tasks.

DEPARTMENTAL INSTRUCTION

Although there are educators who do not favor the departmentalization of instruction in the junior high school, the great majority approve of it. To most junior high school advocates it is, indeed, an essential part of the junior high school plan. It would, however, be very unwise to make a sudden change in a school system working under the old plan and to attempt departmentalization overnight. Teachers and pupils alike need to be prepared for such an innovation, and the best way of accomplishing the change is to proceed slowly, offering a certain amount of departmental teaching in the seventh grade, a larger amount in the eighth grade, and still more in the ninth. After these changes have become established and teachers and pupils have accustomed themselves to the new routine, the departmentalization may be continued until it is complete.

In this connection, the following remarks contained in a circular issued by A. M. Cotter of the Condon Intermediate School at Detroit are interesting :

Our Intermediate School curriculum provides for six clock hours per day, with each pupil assigned to some definite classroom for each of the thirty hours per week ; thus doing away with the difficulties of the study hall, and substituting in its place a combination of supervised study and recitation. Twenty minutes is devoted to

recitation, ten minutes to assignment of new lesson, and thirty minutes to supervised study.

To meet the common objection to the Intermediate School, that pupils are launched into a departmental system too suddenly and that they need the supervision of the "home-room" teacher, we assign pupils during the seventh grade to one teacher in the two content subjects, English and history; thus each pupil spends one third of his time with one teacher, and that teacher can advise wisely his particular group of pupils when the time comes for their election of courses.

Besides the opportunity of election of courses, we further provide for individual differences by promotion by subject, and by grouping pupils into homogeneous groups according to their abilities as indicated by a psychological test.

The plan of having a single teacher act as a "clearing house" to facilitate departmentalization is advocated by J. A. Starkweather of Duluth, who says:

One of the greatest difficulties which arises in the establishing of the junior high school is the change from one teacher to several teachers. This difficulty can be overcome by requiring each teacher in the junior high school to be able to teach at least three of the junior high school subjects and by making a provision that each teacher shall act as a "mother teacher" to a definite group of students. This means that she looks after their attendance, their absence, their tardiness, that she checks up their report cards, and is interested in their daily progress. Other classroom teachers report to this teacher the difficulties of these students and an attempt is made to make her the "clearing house" for adjusting difficulties between a pupil and his teachers.

ELECTIVE STUDIES

Experience seems to indicate that the work of the seventh grade may be made nearly uniform for all types of pupils, and that such differentiation as is to be allowed can best be provided for by means of a group of optional or elective studies. The question whether the needs of pupils above the

seventh grade can best be met by providing a series of fixed curricula or a combination of prescribed studies and free electives, is one that depends to a large extent upon local conditions. No doubt the essential features of both modes of administration can properly be employed. A plan which is being successfully followed by many junior high schools lays down positive prescriptions which all pupils are expected to meet, together with classified lists of optional or elective studies from which pupils may make selections, and a series of definitely formulated curricula intended to lead pupils toward certain goals.

In order that the curricula and the groupings of prescribed and elective subjects may be wisely arranged, when this plan is followed, two positive practices should be encouraged: first, the entire teaching staff within a given school system should be constantly at work, through standing committees of teachers, revising the subject matter that enters into the several courses and curricula; and, second, an active, capable body of counselors should be ready to guide individual pupils in the selection of courses.

The most nearly perfect plan of guidance is one which requires a committee report that deals with each pupil separately. In arriving at the judgment to be followed, the views and recommendations of at least four persons should be considered: the pupil, a parent, the grade teacher in charge of the pupil's home room, and the principal of the school.

An interesting list of elective studies arranged in the order of their prominence has been compiled by a well-known junior high school administrator, H. F. Carmichael of Decatur, Illinois. In the compilation of this list, reports from twenty-four systems were used with the following result:¹

¹ *The Junior High School Clearing House*, Vol. I, No. 4, pages 6 *et seq.*, June-September, 1920.

LIST OF ELECTIVES OFFERED IN TWENTY-FOUR JUNIOR HIGH SCHOOLS

SEVENTH GRADE

SUBJECT	NUMBER OF SCHOOLS	SUBJECT	NUMBER OF SCHOOLS
1. French	11	12. Orchestra	2
2. Latin	9	13. Printing	2
3. Drawing	6	14. Algebra	1
4. Music	6	15. Business Arithmetic . . .	1
5. Shop Work	6	16. Business English	1
6. Spanish	5	17. Crafts	1
7. Mechanical Drawing . .	4	18. Commercial Geography .	1
8. Domestic Art	3	19. General Science	1
9. Domestic Science . . .	3	20. German	1
10. Penmanship	3	21. Nature Study	1
11. Typewriting	3	22. Shorthand	1

EIGHTH GRADE

SUBJECT	NUMBER OF SCHOOLS	SUBJECT	NUMBER OF SCHOOLS
1. Latin	16	16. Commercial Geography .	2
2. French	13	17. General Science	2
3. Spanish	7	18. Orchestra	2
4. Typewriting	7	19. Printing	2
5. Shop Work	7	20. Trade Information . . .	2
6. Business Arithmetic . .	6	21. Ancient History	1
7. Domestic Science . . .	6	22. Business English	1
8. Freehand Drawing . . .	6	23. Commercial Designing .	1
9. Music	6	24. Costume Designing . . .	1
10. Domestic Art	5	25. English	1
11. Bookkeeping	4	26. German	1
12. Mechanical Drawing . .	4	27. Home Decorating	1
13. Penmanship	4	28. Literature	1
14. Shorthand	4	29. Physical Education . . .	1
15. Algebra	3		

NINTH GRADE

SUBJECT	NUMBER OF SCHOOLS	SUBJECT	NUMBER OF SCHOOLS
1. Latin	21	6. Bookkeeping	10
2. Domestic Science . . .	15	7. Mechanical Drawing . .	10
3. French	15	8. Spanish	8
4. Shop Work	14	9. Business Arithmetic . . .	7
5. Domestic Art	11	10. General Science	7

SUBJECT	NUMBER OF SCHOOLS	SUBJECT	NUMBER OF SCHOOLS
11. Music	7	22. Printing	2
12. Shorthand	7	23. Cafeteria Cooking . . .	1
13. Ancient History	6	24. Costume Designing . . .	1
14. Typewriting	6	25. Correlated Mathematics	1
15. Drawing	5	26. Commercial Art	1
16. Algebra	4	27. Commercial English . . .	1
17. Penmanship	4	28. Gardening	1
18. Physiography	4	29. Home Decoration	1
19. Civics	3	30. Literature	1
20. Orchestra	2	31. Salesmanship	1
21. Physiology	2		

The range of curricular offerings provided by one progressive city and the distribution of pupil elections among these offerings is seen from the following tabulations taken from the Los Angeles records in 1919:

ELECTIONS IN THE LOS ANGELES INTERMEDIATE SCHOOLS, 1919¹

	NUMBER ENROLLED		NUMBER ENROLLED
Algebra	907	History	3334
Applied Arts	68	Latin	392
Arithmetic	4319	Music	4388
Bookkeeping	1179	Library Training	24
Cement Work	54	Occupations	2590
Commercial Arithmetic . .	418	Oral English	1936
Cooking	1877	Penmanship	3713
Drawing, Freehand	3391	Physical Training	6463
Drawing, Mechanical . . .	824	Physiology and Hygiene .	1977
Electricity	99	Printing	82
English	6451	Sewing	1876
Forge	46	Spanish	1451
French	790	Spelling	5736
Gardening	336	Stenography	1634
General Science	794	Vocational: Home	
Geography	2587	Economics	15
Home Mechanics	14	Vocational: Restaurant	
		Cooking	15
		Woodwork	2707

Total enrollment in Intermediate Schools, 6706

¹ Adapted from an article written by Arthur Gould in *The School Review*, June, 1920, pages 434 *et seq.*

SPECIAL ARRANGEMENTS

The wisdom of having separate classes for boys and girls in certain subjects has not yet been proved. There is, however, much to be said in favor of such a plan. For example, the idea of providing separate sections for boys and girls in eighth-grade arithmetic offers many advantages. Under such an arrangement, boys could be given instruction in problems that relate specifically to boys' interests or to interests that boys will be apt to follow later. Similarly, the work for girls might be made to center in the problems of the home. Classes in drawing and design lend themselves to the same kind of arrangement. As for the segregation of pupils in study or session rooms, that has been practiced in certain cities for years.

Certain school systems have recently adopted the plan of complete segregation of boys and girls in separate school buildings from the seventh grade through the senior high school. Highland Park, Michigan, follows this plan. While at present, the school authorities, parents, teachers, and pupils in general seem to approve of the arrangement, the practice is perhaps too new to permit us to judge of its advantages.

On the other hand, Detroit segregates boys and girls throughout the six upper grades in "Home Rooms" or "Houses." Appropriate names are selected for these, as, for example, "The Webster House," "The Roosevelt House," "The Frances E. Willard House," and "The Alice Freeman Palmer House." Within these "Houses," a single session-room teacher presides, "House" organizations are established, and "House" loyalties and interests are fostered.

Which of these is the better plan, time alone will tell.

One other type of segregation calls for consideration. If, as has been recommended, pupils are to be admitted to the

junior high school whenever in the judgment of the school authorities they can profit most therefrom, irrespective of the grade in which they are found, then for certain backward pupils some form of "ungraded" or "special" room should be provided.

METHODS OF TEACHING

The details of the best methods to be followed in the teaching of the several subjects of study provided in the junior high school have not yet been scientifically determined. That the methods need to be different from those commonly employed in the grades below and the grades above has been acknowledged ever since the junior high school movement began. At the present moment, it seems clear that those methods will succeed best which employ much concrete material made vital and significant to pupils by means of interpretations that relate it to their own experience. To teach any subject in the junior high school in a formal, uninteresting manner is to invite failure. This school has been inspired by the recognition of the needs of boys and girls as boys and girls; hence, the methods employed must make an appeal to youthful interests.

QUALIFICATIONS OF TEACHERS

What shall be the qualifications demanded of teachers in the junior high school is likewise a question that calls for careful consideration. There is no reason why teachers of departmentalized seventh and eighth grades should not possess as thorough a training as the teachers of other grades of the high school.

As a matter of fact, none but the teacher who is a fair master of the subject matter she teaches and who can grasp it in its entirety and diversity and skillfully relate it to the life experiences of young pupils, should be put in charge of

these grades. In education it matters little how the finishing touches are given to a pupil's development; but the foundation is all important. The task of introducing pupils for the first time to new lines of thought calls for the highest skill, as most college presidents and school superintendents and principals can testify. A beginner, perfect, it may be, in the knowledge of the subject to be taught, but ignorant of the deeper meanings of life and life's relations, will serve the cause of education better if put in charge of advanced, rather than junior high school courses.

This does not mean that no inexperienced teachers shall be employed in the junior high school. Such individuals, provided they possess personal qualities of high merit, and have pursued courses of study that have given them an insight into the educational problems met with in the junior high school, may, because of their enthusiasm, ambition, and recent school experience, prove most inspiring teachers. Faithful teachers previously employed in the seventh and eighth grades of the traditional school should not be transferred, against their will, to other divisions of the school system, provided they possess qualities that fit them for work in the junior high school and can meet the necessary standards of scholarship and training.

It stands to reason that ample time and opportunity to adjust their methods and experience to the requirements of the new school should be given to all teachers who have taught, and who desire to continue teaching, seventh and eighth grade pupils.

On the other hand, for teachers who are temperamentally unfitted for departmental work, or who prefer to continue in undepartmentalized rooms, transfers should be arranged. In certain forms of organized activity, changes of system are apt to create some hardships; but in the public schools of America, where all teachers have equal standing, the

chances of doing individual teachers an injustice by merely modifying or altering the work of the schools are reduced to the minimum. However, in any case, the schools exist for the pupils, not for the teachers and administrators.

There is indeed no logical reason for discrimination anywhere in the school system, merely because of the grade of work being taught. The policy of requiring teachers to assume charge of classes in various grades — from the seventh to the twelfth — helps to break down false notions of superiority where such false and snobbish notions exist.

GRADUATION EXERCISES

The plan of conducting graduating exercises at the completion of the ninth-grade work is thought by many persons to be unwise. The custom is a survival, so it is alleged, of a practice which had some justification at a time when few expected to continue their schooling beyond the eighth grade. Today the operation of the compulsory school law makes the custom unnecessary. To perpetuate it is to support the idea that the completion of the work of the ninth grade marks a natural stopping point in schooling. The effect of such exercises is likely, therefore, to be diametrically opposed to the spirit that has produced the junior high school. Certificates indicating the completion of the elementary course may with full propriety be issued at this time, but public graduation exercises can most wisely be eliminated entirely until the senior high school course has been finished.

If, however, the junior high school is to be regarded as a distinct unit in the school system, some simple recognition of the fact is not out of place. The exercises need not be elaborate, nor need the idea of having finished school be overemphasized. Youths, as we have seen, love ceremonies. Moreover, properly organized graduation exercises are as likely to

inspire pupils to go on to the senior high school as to deter them from it.

COSTS

All the statistics available tend to show that while the junior high school, as a rule, costs somewhat more than the elementary schools in the same system, it costs less than the senior high school. Hence what is added in one place is subtracted in another. Moreover, if a community sows sparingly, it must expect to reap sparingly. The junior high school costs very little more than the traditional type of school, and it is worth whatever it costs.

CONCLUSION

How educators generally are viewing the questions of administration can perhaps be seen from the following study. In 1922, J. M. Glass, acting for a committee appointed by the National Council of Education, submitted a series of questions on the junior high school to a selected group of educational leaders. Sixty-four replied. Of these thirty-one were superintendents, twenty-four were junior high school principals, and nine were university men who had studied the matter of school reorganization. Some of the more significant questions, together with the replies, expressed in percentages, follow:¹

	IDEAL MOST COM- MONLY APPROVED	PERCENTAGE OF VOTES FOR
1. What should be the length of the J. H. S. day (exclusive of luncheon periods)?	Six clock hours	62.5
2. What should be the length of the J. H. S. period?	50-60 minutes	72.0
3. Are study halls for undirected study desirable educationally?	No	85.0
4. Are joint recitation-study periods preferable?	Yes	100.0

¹ From a circular of information.

	IDEAL MOST COM- MONLY APPROVED	PERCENTAGE OF VOTES FOR
5. In a six-period day, how many periods of prepared work (not including fine or practical arts) should be required?	Four or five	76.5
6. Do you favor organizing the J. H. S. curriculum to serve the needs both of continuants into the senior high school and drop-outs from the junior high school?	Yes	100.0
7. Do you favor subordinating deferred values in the J. H. S. curriculum to more immediate values?	Yes	85.0
8. Are general courses in high school subjects desirable for J. H. S. pupils before the initial choice of electives is permitted?	Yes	84.5
9. Which of the following two plans is better for the ninth grade in J. H. S.?		
(a) Curriculum choices	Yes	58.0
(b) Constant with variables	Yes	42.0
10. Should the present practice of including the ninth year in accrediting high school pupils to college be continued?	No	62.5
11. Should the J. H. S. insist that the senior high school alone be in accrediting relations to higher institutions?	Yes	64.0
12. Should J. H. S. courses be revised by the J. H. S. independently, or by the J. H. S. and S. H. S. coöperatively?	Coöperatively	91.0
13. Should J. H. S. pupils be classified by ability groups?	Yes	85.0
14. Which of the following three plans of promotion to senior high school do you favor?		
(a) Pupils completing entire J. H. S. curriculum	Yes	29.5
(b) Pupils completing partial J. H. S. curriculum	Yes	8.0
(c) Pupils of general ability who have earned the required credits	Yes	54.5
15. Should "school activities" be given a definite time allotment in the school program of studies?	Yes	80.0

CHAPTER NINETEEN

COLLATERAL ACTIVITIES

EVERY junior high school should make adequate provision for collateral activities in the fields of art, music, oratory, dramatic art, athletics, social recreations, and community service. General student organizations should be fostered and protected and the growth of helpful clubs encouraged. There are a thousand and one things of the utmost importance for a successful life that can only be learned by being an active member of a well-organized social group. If the school is to help its pupils to live the kind of lives that American democracy requires, it must make provision for outside activities in which the relations of the individual to society, and of society to the individual, may be learned at first hand. What a pupil needs is an opportunity to test his capacities in various ways and, after discovering his true interests, a chance to select and pursue activities that harmonize with his tastes and abilities.

The keynote of democracy is equality of opportunity, not equality in achievement. It is quite as essential for pupils to learn that they are not qualified for certain kinds of work and play as it is for them to learn that they possess peculiar abilities in other lines of endeavor. Hence, to reduce discouragement and, likewise, to counterbalance the spirit of personal egotism, a sufficient array of student collateral activities should be provided in every school to give each boy (and girl) a chance to win reasonable distinction in at least one line, and to reveal to his fellow students that he, too, has special aptitudes. Moreover, if organizations can be conducted with the idea that club welfare and honors should be paramount to personal advantage, a second great lesson will have been learned, that "he profits most who

serves best." When the idea becomes established that he is worthy of credit and honor who, by faithful service, adds but one point to the sum total of his club's score; then will a new incentive have been implanted in youthful hearts and a new spirit developed in school life.

GENERAL ASSEMBLY

The school assembly plays an important part in the social life of the school. In general, the assembly should afford the whole school an opportunity to consider and to discuss in as informal a manner as possible, matters of vital interest to the school. Musicales furnished by members of the faculty and pupils, and lectures and addresses on appropriate subjects should be given from time to time.

The place which is being assigned to the auditorium or assembly activities is interestingly revealed by the following account of the plan in operation in the Condon Intermediate School, Detroit :

The last side of child nature to receive recognition and a proper opportunity for training and development has been the spiritual side, the side that means culture and ideals. With this slowly awakening sense has come the establishment of various means for socializing education, chief among which ranks the auditorium, and the work which can be done by this agency. Here the child should be given an opportunity to find out that the facts he is assimilating in classrooms are not mere dry, unrelated exercises, totally outside of his daily life. The auditorium should open to him the doors of a world of cultural beauty, the keys to which the classroom has put into his hands, but which his daily life and environment too often prevent him from entering or even approaching.

Therefore, the auditorium should be the place in our educational system where children learn to be social beings, to make the most of themselves and to cooperate with others in making the most of themselves. It should be a sort of clearing house for all the other branches of the school world, a focus of knowledge and activity,

and a source from which should come desire for further knowledge and ability to use well in life the knowledge already acquired.

Many of these pupils come from pitifully poor, overcrowded homes. They live in an atmosphere of dirt, disease, hurry, and worry; their highest form of amusement is a cheap movie-house or dance hall. They have no books or pictures at home; many of them know nothing of books except the few that are forced upon them at school, and nothing at all of good music or pictures. The auditorium ought to present to these crippled spirits the resources of a great city along the lines of literature, art, and music. It ought to substitute for cheap and shoddy amusement the finer, better things which are just as easy to attain. Good books, good pictures, and good music ought to be the inalienable right and privilege of every American child.¹

COMMUNITY SERVICE

Many schools have shown that it is possible for their pupils to participate in various forms of social service to the community. Such opportunities are embraced by the pupils, young reformers and missionaries that they are, with great eagerness. Settlement work is valuable because it brings pupils into sympathetic contact with society at large; but boys and girls of junior high school age should not be brought too often into contact with misery and wretchedness. School work is a sufficient tax upon the energies of most pupils, and nothing that is too difficult or emotionally exhausting should be permitted in this or any other of the collateral activities sanctioned by the school officers. Occasionally, funds obtained by means of dramatic and musical entertainments may be devoted to charitable works. For any and all kinds of community service requiring a financial outlay, it is better to use a fund derived from a united effort on the part of the whole school to earn the money rather than a fund consisting of the monetary contributions of individual students.

¹ The *Detroit Educational Bulletin*, January, 1921.

STUDENT SELF-GOVERNMENT

Rarely, indeed, it would seem, should elaborate schemes of student government be encouraged in the junior high school. Pupils are too immature at that stage of life to take complete responsibilities in weighty matters of school direction. Nevertheless, some power of self-government should certainly be delegated to them. Only as beginnings in group control are made in the school will the primary purpose of public education be realized. Student councils, authorized to discuss topics relating specifically to student group interests, and invited to advise freely with the legally constituted authorities in the school respecting the administration thereof, will do much to produce a spirit of co-operation and a sense of group responsibility throughout the entire student body. Moreover, such participation gives excellent training for the active affairs as citizens when adult life is reached.

Speaking on the general topic "Self-government, a Phase of Intermediate School Organization," Deputy Superintendent Charles Spain of Detroit expresses himself thus:

Some scheme of student self-government should play an important part in this program. It is not meant to imply by the term student self-government that any school, intermediate or high, has ever had or ever should have complete and actual self-government. The responsibility for the discipline and organization of a school rests upon the administrative officials of the school, and by the very nature of things cannot be delegated to any one else. Any attempt, too, to justify self-government by the statement that it removes the problems of discipline from the shoulders of the administrative officials of the school must fail. The problems will still arise and will still be handled by the principal, probably at an equal or greater expense of time and effort through a scheme of student self-government, than if dealt with directly.

So, a teacher of arithmetic can herself more easily solve any given problem that may arise in her subject, and at less expense

of time, than if she has her class solve it; but the primary end she seeks is not the conservation of time and energy, nor is the solution of the problem itself her concern. What she desires is that her class shall acquire, through practice with that particular problem, an ability to deal with arithmetical problems.

The attitude of the principal toward a scheme of self-government must be a similar one. He should look upon himself as an instructor in democracy, and upon his organization for self-government as his classroom or laboratory. If the intermediate school is to perform the socializing function that it professes to be its main objective, it must afford the pupil an opportunity, under wise and careful direction, to practice democracy; to learn intelligent obedience to properly constituted authority; to discover and develop qualities of leadership; to respect the will of the majority; and, in general, to practice the self-control that democracy is based upon.

What the organization and framework of such a scheme will be, will depend upon the local conditions of every school. It cannot be successfully established until a proper school spirit is developed by long and careful preparation, and it must be maintained by unremitting vigilance. The home-room group furnishes a logical unit upon which the intermediate school may build such a system.¹

Rochester, New York, Junior High schools stimulate student responsibility in several specific ways. The home room is organized as a class government. Class guides serve as captains of various divisions of students and lead their lines in the corridors, at fire drills, and in other forms of marching. Class ushers receive visitors to the school, and escort them to the desired portion of the building. Bicycle committees receive and check bicycles, place them in their stalls, and at dismissal return the wheels to their claimants. Luncheon committees control the procedure in going to and returning from the cafeterias. Safety-first committees are alert to check and report dangerous conditions found in and about the buildings.

Service squads, juvenile street police officers to direct

¹ *Detroit Educational Bulletin*, Vol. 4, No. 6, pages 3-4.

traffic immediately in front of the school building just preceding and following the calling and dismissal of school, errand boys and girls, toilet-room committees, playground monitors, attendance clerks — these are but a few additional appointments that are made or services that are rendered in other junior high schools. The list might be extended at length.

SCHOOL CLUBS

Perhaps no better formulation of the club ideal has been published than that appearing in a booklet issued by the Washington Junior High School, Rochester, New York, and entitled *Clubs*:

The club ideal is purely avocational, democratic, and is based upon the doctrine of individual justice for all. In it are reflected the fundamental principles for which the junior high school is the exponent. Clubs have an immediate and a deferred value: the formation of good habits now in the use of spare time; the provision in life for an avocation. It is not enough that a man make a living; he must enjoy living. Leisure hours well spent make for complete living. When the time comes that every man is equipped with a worthy hobby, there will be less discontent and crime in the world.

The boy and the girl in the teens are plastic and susceptible to outside influence. Then the natural instinct for social life begins to assert itself. The boy becomes interested in the "gang"; the girl discovers her best "girl friend." It is the age of restless activity, of hero worship, of leadership development. The school must meet the youth on his own ground — not by repression, but by expression through interesting and well-planned channels.

The club system aims to provide for every kind of activity. For some children it is interest in wireless; for many browsing around a bookshelf or collecting stamps; for others exchanging bits of camp lore; for still others excursions into the woods for birds or flowers. After three years it is difficult to conceive of a boy or girl who has not developed an enthusiasm for some hobby.

Clubs are intrinsically avocational, distinct in spirit from or-

dinary school work. But in many instances they offer further field for exploration and become vocational. More than one boy has caught a vision that revolutionized his plans for life work. Often a latent talent whose existence might never have been detected is brought to light. A lad, who intended to leave school at the end of the eighth grade, spent one term in the Landscape Gardening Club and thereupon planned for high school; another, of supposedly ordinary ability, exhibited through the Pottery Club an apparent native skill in sculpturing.

Since the corner stone of the junior high school is justice for the individual, every student must be given an equal chance adapted to his abilities and aptitudes. In the club this doctrine of "individual justice" is emphasized. The students themselves elect a club in accordance with their own ideas, each one choosing the thing he likes best. "And no one shall work for money, and no one shall work for fame; But each for the joy of working."

Democracy is a distinctive feature of the clubs. It provides an interest common to all, irrespective of age, of class, or nationality. In one club may be found members from perhaps every department in the school, banded together for mutual pleasure. Thus are the varied elements in the school leavened into a beautiful good fellowship — good fellowship that results from working side by side for a common purpose.

The final analysis of the club ideal shows the formation of character to be a fundamental element. Clubs are potent influences. Real character is revealed by the method in which one spends his leisure hours. In a "Common Sense Talk" put out by a Rochester firm for its employees, the statement is made: "A fellow who is seen at a lecture or deep in a book or busied about some hobby is judged to be a man of purpose and self respect."

School clubs in some ways resemble the informal education of old Greece where the master was one with his pupils who clustered about him in small groups and with a common interest at heart developed wisdom and character. The modern ideal, however, is not limited in its scope, but embraces all activities of life. On Friday morning from eleven to eleven-fifty Washington Junior High School presents the unique picture of eighteen hundred boys and girls engaged in the pursuit of happiness, each in his own way. Truly does the school fulfill the mission of making true men and women for our great Republic.

Continuing, the bulletin gives a brief sketch of the plan of organization of clubs. It is as follows:

The organization of clubs is simplified as much as possible. The students on the second Friday of the term choose three clubs from the completed list and state the reasons for each choice. The students are assigned to first choice if possible, to second or third if necessary. Those who give the most forceful reasons are considered first. Attendance is checked by small tickets bearing the name of the club. One is given to every member at each meeting. Each club is self-supporting. Many clubs have no expense. Where club membership involves expense, it is merely for materials the student himself uses and they are sold to him at cost.

Seven B classes do not elect a club, but form one large group of their own with special programs dealing with life in junior high school. The objective is to initiate the pupils into the school organization and to educate them in the school spirit.¹

The Washington Junior High School, conforming to these ideals, makes provision for sixty clubs, as follows:

Airplane Club	Folk Song and Dance Club
Athletic Club (Boys)	French Club
Athletic Club (Girls)	Handicraft Club
Basketry Club	Home Economics Club
Bird Club	Home Nursing Club
Boys' Series Club	Illustrators Club
(<i>Reading boys' books</i>)	Kipling Club
Camera Club	Kite Club
Camp Craft Club	Knitting Club
Campfire Girls Club	Know Your City Club
Cartooning Club	Landscape Gardening Club
Chemistry Club	Laundry Club
Crochet Club	Martha Washington Club
Debating Club	(<i>Crocheting colored rag rugs</i>)
Dramatic Club	Military Club
Embroidery Club	(<i>Drilling and study of manual of arms</i>)
Ernest Thompson-Seton Club	Millinery Club
(<i>Nature study</i>)	Music Appreciation Club
First Aid Club	

¹ Bulletin, page 4.

Mythology Club	Story Telling Club
Newspaper Club	Success Club
Orchestra Club	(Talks by successful men, followed by discussions)
Pottery Club	Swimming Club (Boys)
Public Speaking Club	Tatting Club
Puzzle Club	Travel Club
Radio Club	(Imaginary trips by means of stereopticon)
Red Cross Club	Violin Club : Beginners
Reporters Club	Violin Club : Intermediate
Santa Claus Club	Violin Club : Advanced
Scrap Book Club	Wildflower Club
Senior Corps Boys	Willing Workers Club
Senior Corps Girls	(Making clothing for small children)
Short Story Club	Wireless Builders Club
Social Hour Club	
(Consideration of etiquette)	
Spanish Club	

The Manual Arts High School of Los Angeles, California, furnishes a good illustration of what may be done with student collateral activities. In speaking of the value of such endeavors a bulletin of the school says:

It is clearly recognized at Manual that many elements besides the formal studies enter into the well-rounded education. Not only are students kept in school by added interests and pleasures, but the associations and experience supplied by the various activities are invaluable preparation for helpful, public-spirited citizenship.

The bulletin then describes the following types of organizations:

1. The Memorian Society is a scholarship organization, admission to which is secured only by securing four A's in a given semester.
2. The Girls' League, which aims to foster a spirit of "helpfulness and democracy in the affairs of daily life" and to "encourage high ideals of conduct and scholarship."
3. The Pen and Pencil Club, composed of members possessing a facility for literary writing.

4. The Commercial Club, consisting of all students who hold important positions in school business.
5. Girls' Glee Club.
6. Boys' Glee Club.
7. Four Language Clubs — Latin, French, German, and Spanish.
8. Choral Club.
9. Players' Club.
10. Advanced and Junior Debating Clubs.
11. The Adelpic Society, consisting of the members of the senior classes.
12. The Girls' Gym Club.
13. The Archery Club.
14. The Student-Body Organization, including every member of the school.
15. The Student Council, composed of the various classroom presidents and devoting its attention to debating and recommending the adoption of policies respecting questions of real importance to the student body.
16. The Board of Finance, composed of four teachers and three students whose duty it is to handle all money matters relating to the school's student activities.

While the above list of activities is to be found operating in a senior high school of large size, and should not be adopted *in toto* for a junior high school — and particularly for a small school — it does offer suggestions as to what may be done.

DRAMATICS

Since a partially recognized function of our secondary schools pertains to instruction and training in dramatic art, the dramatic club deserves special consideration. That the drama constitutes a powerful agency for wielding influence over society has been recognized by all great political, religious, and social leaders. That it likewise possesses a fascination for old and young is shown both by the testimony of experts and by the general observation

of society at play almost anywhere. Particularly active, however, is the dramatic instinct in children and youths. In speaking of this instinct, Dr. G. Stanley Hall says:

The dramatic instinct has innumerable outcroppings in childhood and youth, and the present seems to be the proper psychological moment for its appreciation and its utilization in education. . . . In the kindergarten they fly like birds, hop like frogs, go on all fours like quadrupeds, and mimic perhaps every person and vocation they know, and thus find enlargement and relief.¹

Dr. Elnora Curtis, describing the same phenomenon in the life of children, says:

This is the response to a need and desire felt everywhere and in all ages, — the desire to feel what others are feeling, to act and get experience by proxy, to get the enjoyment of borrowed pain, to put into practice the Aristotelian principle of katharsis. All this so true of man is still more true of the child and youth, live with surplus energy, possessed by a craving for excitement, seeking always something new.²

The dramatic craving is today seemingly more pronounced than ever before. With the coming of the motion picture the influence of dramatic art is extending into every home. In a recent census taken in Chicago, it was found that in a single day one sixth of the population of the entire city was at the theaters. At that rate, the total population could be reached in a week's time.

It is the contention of psychologists that the human mind is ever reaching out and searching for something concrete, tangible, and definite. These things the audience unconsciously receives in the theater. The drama of high quality has a deep-rooted fact or principle of life for its theme. It is presented in the theater where human beings receive their daily impressions which help to form their ideals, beliefs,

¹ *Educational Problems*, page 25.

² *The Dramatic Instinct in Education*, page 2.

convictions, likes and dislikes, attitudes, interests, and character.

That the junior high school should therefore give much attention to the drama and the development of wholesome dramatic interests is manifest when one considers not only that children of the junior high school age are the most numerous of our theater goers, but that the influences of the drama upon them are doubtless stronger than upon any other class of individuals. Youths will resort to almost any device to secure admission to the theater or motion picture show, and there's a reason: it satisfies their craving for excitement, their curiosity, and their love for an excursion into the world of the imagination. The vividness of imagery, interest in mysticism, spirit of adventuresomeness, aspirations for religious experiences, and tendencies to hero worship are nothing more than the forceful undercurrents of the dramatic instinct in their life. The whole demand for the dramatic is only the demand for the expression of personality and the chance to escape from natural and imposed limitations. The drama gives the child a hitherto unrecognized outlet of expression, stimulates his imagination, and develops assurance in naturally timid individuals. It affords a new field of work in composition and can be correlated with the work of the art, music, and physical training departments.

The training of these sentiments is therefore one of the conspicuous needs of the age, and the junior high school is most admirably constituted to undertake the task. Properly administered, dramatic training should contribute directly to the realization of all seven of the objectives established by the Committee on the Reorganization of Secondary Education as outcomes of the public schools. Therefore as many individuals as possible should be encouraged to participate actively in dramatic productions,



Photograph by courtesy of State Department of Public Instruction, Pennsylvania
Members of a Junior High School class in sewing, at Allentown, Pennsylvania, wearing dresses made by themselves.



Photograph by courtesy of State Department of Public Instruction, Pennsylvania
A Boy Scout troop composed of pupils of the Irwin Avenue Junior High School at Pittsburgh, Pennsylvania.

and to this end short plays of high literary and artistic merit should constitute the chief undertakings of the junior high school in this line. Moreover, such plays are the best adapted to junior high school production.

SOCIAL RECREATION

Ample opportunity should be provided for purely social recreation by arranging social affairs at frequent intervals. It is in connection with parties, "social mixers," and dances that boys and girls come together for the sole purpose of enjoying one another's society. Such intermingling produces a noticeable diminution of the silliness that so often characterizes the relations of boys and girls at this age. A requirement that all social activities of clubs and classes be held in the afternoon will remove many difficulties.

The details of these affairs may best be worked out by those in charge. It is advisable that as far as possible social activities be made a part of the pupils' regular program, so that pupils who are engaged in vocational work outside of school shall have an opportunity to attend them. The practice of restricting social affairs to certain days of the week has much to recommend it.

ATHLETICS

Boys and girls of junior high school age are keenly interested in sports. In the past, however, the sports provided for them have been either too strenuous or too simple. They have also been too limited in range, and too haphazard in organization, for the results they sought to obtain. School sports, to be effective, should benefit all pupils, giving pleasure to the robust and strength to the weak. By their appeal to the spirit of fair play, they can implant high ideals of sportsmanship in the minds of all concerned.

The best scheme of administration is that which permits every child to participate in every contest, competing only with pupils of like abilities. By organizing the pupils into groups and the groups into leagues, and avoiding all class distinctions in making selections, a system of organized athletics can be built up which in no wise loses any of the advantages connected with interscholastic contests and which, moreover, secures benefits not possible under other arrangements.

Several ways of scoring achievements under this plan have been proposed. One, advocated by E. P. Gilchrist, is as follows :

The method proposed does motivate athletics for all, for it offers to each the satisfaction of having his performance, mediocre or even bad though it be, count in a total score for his school. . . . Furthermore, the method offers opportunity for direct competition between schools in distant localities. By means of it, the boys of San Francisco, Boston, Denver, Kalamazoo, Mobile, etc., are brought into immediate competition, for the schools of each city undertake therein to show the highest average of athletic ability.

The method of scoring involves the somewhat arbitrary fixing of a scale of measurement of values. The scale is a correlation of point-value with excellence. To illustrate :

EVENT	TIME, HEIGHT, OR DISTANCE	POINTS
High jump . . .	Each inch over 30 inches	1
Broad jump . . .	Each inch over 10 feet	1
Pole vault	Each inch over 50 inches	1
50-yd. dash	Each $\frac{1}{5}$ second under 10 seconds	1
100-yd. dash	Each $\frac{1}{5}$ second under 18 seconds	1
220-yd. dash	Each $\frac{1}{5}$ second under 36 seconds	1
440-yd. run	Each $\frac{1}{5}$ second under 70 seconds	1
Hand-grenade throw	(Points to be determined by the number of "hits" in ten throws at distances varying from 15 yds. to 45 yds.)	

The following is an illustrative individual score :

<i>Name:</i>	Frank Clark	<i>Date:</i>	May 10, 1923
440-yd. dash	66 seconds		<u>20 points</u>
	Total		87 points

A boy may try to increase his score. He will be given credit for any additional points he may bring in at any time. To illustrate: Frank Clark might improve upon his performance of May 10. He would be given credit for the additional points as follows:

High jump.	43 inches	<u>1</u>
Broad jump	11 feet	<u>2</u>
50 yard dash	7 $\frac{3}{5}$	<u>2</u>
	Total	5

The following is an illustrative school score :

A	29
B	13
C	98
D	73
E	123
F	17
G	46
H	72
I	34

NOTE. When the total number of points in a school score is divided by the number of contestants, the quotient represents the average athletic ability.

To stimulate interest the scores of individuals and the total score could be posted daily. To illustrate :

<i>Date:</i>	May 22, 1918	<i>Previous Score:</i>	1,068 points
NAMES		NEW POINTS	
R		25	
T		43	
V		16	
W		73	
A		2	
M		18	
L		<u>7</u>	
Total		184	<u>184 points</u>
Grand Total			1,252 points
Enrollment			36
Average Ability		$1,252 \div 36$	34.8^1

¹ See also *School and Society*, May 18, 1918.

Another plan that stimulates personal effort and produces good results for all, is that of conducting a school play festival late in the spring months and of awarding badges to every youth who attains to certain predetermined standards in athletic or gymnastic exercises. As in the plan of Mr. Gilchrist, the contest can be arranged for boys and girls separately, and among each group further classification can be made in accordance with the pupils' ages or other criteria. The following is an illustration of this plan:

A badge is to be awarded to each boy who qualifies in all three events in any of the following classes:

Class C Badge

Pull up (chinning the bar)	5 times
Standing broad jump	5 ft. 6 in.
Sixty-yd. dash	9½ seconds

Class B Badge

Pull up (chinning the bar)	8 times
Standing broad jump	6 ft. 3 in.
One-hundred-yd. dash	16 seconds

Class A Badge

Pull up (chinning the bar)	12 times
Running high jump	4 feet
Two-hundred-twenty-yd. run	32 seconds

The following outdoor games and exercises for junior high school boys and girls are suggested in the Omaha course of study.

Outdoor Games for Boys

Prisoners' base	Scrimmage ball
Pom-pom-pull-away	Keep ball
Cross tag	Playground ball
Medicine ball	Bat and ball games
Athletics (twenty, fifty, hundred-yd. dash)	Obstacle race
	Tug of war

Relay race
Potato race

High jump
Broad jump

Girls' Games

Atalanta race
Captain ball
Tether ball

The ring and the apple
Singing and dancing games
Folk dances (as in fifth
and sixth years)

Athletics for Girls

Short distance races

Relay races

Walking tests

It is sometimes desirable to have boys and girls associated in athletics of the less strenuous type.

The attitude of the authorities in the Ben Blewett Junior High School, St. Louis, toward athletics is based on common sense and a thorough understanding of the needs of young pupils :

Blewett endeavors to stress intra-school athletics and organized play ; attempt is made to draw every boy and girl into the games of gymnasium and playground. A wholesome spirit of competition is fostered between individuals and classes, and with the individual's own achievements. During the past autumn there have been series of interclass games in playground baseball, in soccer, in track and field athletics. Monday afternoons find six interclass games of seventh-grade advisory groups, Wednesdays, eighth-grade teams, Fridays, ninth-grade. Grade winners play each other for the school championship. Each Tuesday are held track and field contests, two or three events only each week, with separate heats and finals for the seventh, eighth, and ninth grades, culminating in finals for school championships. The Tuesday series, growing more strenuous from week to week, culminates in a cross-country run, or a hare and hound race. Careful records in all events are kept, and through a scoring system, boys who consistently show a fair degree of ability may win the school letter. The soccer series of competition for school championship, beginning with outer

advisory group games, is inaugurated as soon as playground baseball is finished. Similar series of outdoor competition in games suitable for girls are also held; baseball, dodge ball, basket ball, and volley ball are popular.¹

Four conditions are essential for the carrying out of an extensive and varied program of athletics in the junior high school:

- (1) Favorable surroundings for outdoor exercise.
- (2) Classification of pupils according to gymnastic ability.
- (3) A program of non-standardized athletic sports. (The standardized ones give encouragement to notoriety seeking and to competitions for championship.)
- (4) Provision for medical gymnastics in connection with physical training.

The athletic department should have the use of two large athletic fields for outdoor exercise both in summer and on warm days in winter, and two large, well-ventilated gymnasiums, one for the girls and one for the boys. These should have swimming pools, running tracks, a large playing floor, offices and separate rooms for physical examination, and be equipped with hand ball, boxing, wrestling, and other modern gymnasium apparatus. A school physician for the boys and a school nurse for the girls should be close at hand, and the entire department should be presided over by a physical instructor who knows how boys and girls should be developed and what kind of exercise is best suited to correct physical defects, an instructor who realizes that his business is to take his pupils as he finds them and to develop each one according to that pupil's natural ability, not merely to develop the best specimens and force the rest to drop out and look on.

The following plan for administering a physical education schedule has been suggested:

¹ Lyman, R. L., in *School Review*, page 106, February, 1920

IN SCHOOL HOURS

	<i>Seventh Grade</i>	<i>Eighth Grade</i>	<i>Ninth Grade</i>
Monday	Gymnasium	Swimming	Gymnasium
Tuesday	Swimming	Gymnasium	Swimming
Wednesday	Gymnasium	{ Basket ball, volley ball, soc- cer, hand ball, or stunts	{ Basket ball, games, and stunts
Thursday	Swimming	Gymnasium	Swimming
Friday	{ Games, stunt and ball Folk dancing	Swimming	{ Advanced gym- nasium and dan- cing

AFTER SCHOOL

Tennis	Tennis	Tennis
Football or Soccer	Football	Football
Wrestling	Baseball	Baseball
	Boxing	Track
	Track	Boxing
		Wrestling

CHAPTER TWENTY

THE JUNIOR HIGH SCHOOL BUILDING

NO particular standard plan for the junior high school building has as yet been adopted. In making arrangements for junior high school pupils, however, it is well to remember that the best is none too good. To dedicate to their use a structure that has been abandoned for senior high school purposes because of its inconveniences, lack of sanitary arrangements, and general dilapidation is to defeat the very ends a junior high school seeks to attain. Nevertheless, many a so-called junior high school has been formed during the last ten years largely, or solely, because the local building situation forced the issue. In all too many instances, a new and modern building has been erected for the senior high school and an old and unattractive structure has been turned over to the junior high school. The truly defensible procedure is quite the reverse. Attractive physical surroundings have an especially strong influence upon boys and girls; consequently, a building intended for the use of junior high school pupils should be of such a nature as to satisfy their love of beauty and to awaken in them a sense of the value of neat and harmonious arrangements. The building should also possess all the distinctive features demanded by a program of studies and extra-curricular activities designed to meet the needs of adolescent children.

Both the building and the program of studies are, however, but means to an end; namely, that the educational objectives may be realized. The building, therefore, should not be erected on general architectural lines while the program of work is left to be adapted to it; rather the aim and purpose of the school as an institution should determine the teaching, and this in turn should determine the form and character of the school building.

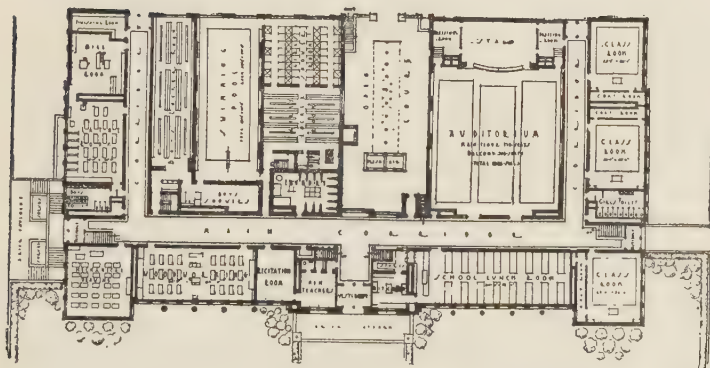
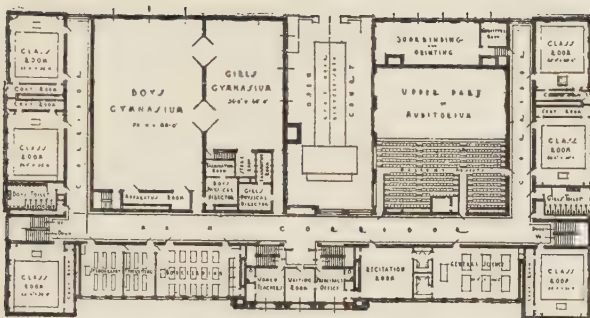
There should be ample provision for shops, laboratories, and workrooms, designed, arranged, and equipped with reference to the activities to be carried on within them and with regard to the stage of development of the pupils who are to use them. Similar considerations require that various types of seating arrangements be installed, some rooms being fitted with adjustable seats and desks; other rooms with movable chairs with arm-rests; still other rooms with benches and writing-folders; and, again, others with chairs and tables, or stools and adjustable book-rests.

Throughout the building, the ideals of serviceability, suitability, and beauty should dominate. Light, airy, cheerful rooms, well supplied with suitable school apparatus; sound-proof walls and floors; spacious corridors; commodious elevators and stairways — these, at least, should be found in every junior high school building.

The size of the junior high school building will obviously be determined by the program of studies, the size of the town, the school population, the resources at the command of the builders, and the desire on the part of the authorities to make provision for future needs. Seemingly, it is a mistake to erect any junior high school building, whatever be its size, without making adequate provision for academic work, auditorium meetings, athletics and physical training, manual and practical arts, fine arts and music, and various collateral activities.

Superintendent Marsh describes the new buildings at Jackson, Michigan, as follows:

The two new intermediate schools of Jackson are designed to accommodate the entire school enrollment in grades seven, eight, and nine. They are called "intermediate" rather than "junior high" schools, because the term seems more logical and because it is believed that these schools ought not to be thought of as high schools at all, but as intermediate in all respects between the elementary



Leonard H. Field, Jr., Architect

First-floor plan (below) and second-floor plan (above) of West Intermediate School, Jackson, Michigan.

school below and the high school above — intermediate in organization, in methods of discipline and control, in subject matter of instruction, in methods of teaching.

The buildings themselves — in cost, in architectural features, in layout of rooms, amount of space devoted to different departments — partake of the nature of both elementary and high school. For instance, because it is believed that the intermediate schools ought to make easy the transition from the lower to the higher school, the buildings contain a certain number of rooms of the ordinary elementary school type where the pupils become adjusted gradually to the specialized departmental organization of the high school.

The West Intermediate School is 270 feet long by 140 feet wide, built of brick trimmed with Bedford stone, and fireproof throughout. The cost of building and contents was \$370,000. The East Intermediate School is 320 feet long by 128 feet wide, and cost with contents \$285,000. While the two buildings differ in size and architectural treatment, they are alike in other essential particulars. Both were planned with a view to future extensions, only the central features and a minimum number of classrooms being included in the present structure. Each contains auditorium; cafeteria; separate gymnasiums for boys and girls; swimming pool; shower baths and locker rooms; mill, bench, and lathe rooms; print shop; mechanical drawing and art rooms; sewing, cooking, and housekeeping rooms; laundry; bookkeeping, stenography, and typewriting rooms; general science and agriculture laboratories; plant room; study hall, and recitation rooms.

Primarily the new schools represent an attempt to solve the problem of the education of children of the early adolescent age. It is planned, first, to hold the children in school by making the school itself as interesting and attractive to them as possible; then, to recognize frankly that nature has not made them all alike; to offer, not the same education, but equal educational opportunity to all of them; to develop and train whatever abilities they have; to discover powers, tastes, and aptitudes; and finally to turn over to the high school as many of them as possible prepared to choose intelligently and follow profitably the lines of work in which they are most apt to succeed.¹

¹ From a bulletin issued by the school.

In speaking of the twelve new intermediate buildings planned for Buffalo, Mr. Ittner, the architect, says that in many respects they will be pioneer buildings of this type. Each of the Buffalo buildings exhibits the following features :

1. Three stories in height, accommodating twelve hundred pupils.
2. The school basement eliminated.
3. Classrooms on one side of the corridors only, thus permitting a maximum of sunlight to penetrate to all parts of the building.
4. The first floor to be used for administrative rooms, the auditorium, the vocational departments, the lunchroom, and the room for physical training. This floor is also to serve the larger community interests of the locality.
5. Classrooms planned to permit laboratory and socialized class methods.
6. A library-study-reference room to serve also as a room for the meetings of all student societies and governing bodies — in short, to serve as a civic-social center for the school.
7. A special room for music and public speaking planned as a small auditorium seating one hundred and fifty persons, and provided with a stage and a storage room for music instruments.
8. Three gymnasiums of standard size.
9. A locker room on the ground floor.
10. A lunchroom, accommodating three hundred pupils.
11. Rooms in the basement for both men and women janitors.
12. The entire building to be designed to serve community needs and community gatherings as well as the purposes of the school pupils.

The plans for the new Detroit intermediate schools call for like innovations. A brief description of some of these follows :

In recognition of the fact that the success of this school will depend in a large degree upon the skill with which it is administered,

an attempt has been made to plan the offices in a way that will be most conducive to effective administration.

Separate administrative offices are provided for the health department. The general administrative offices are located on the second floor. They include offices for the principal and assistant principal, a general waiting room with space for clerks, and a large room divided into administrative compartments to be used by heads of departments and vocational counselors.

Adjoining the administrative offices will be a teachers' workroom. The general plan of organization does not include a separate room for each teacher. This workroom will be a general work and study room for teachers. Here each teacher will have a locker for her books and papers and tables will be provided for work or study. A section of this room will be seated with special opera chairs facing a raised platform. This space will be used for faculty meetings and other group meetings, and may be utilized at times as a small auditorium.

While this building has been arranged primarily and definitely to meet the requirements of the intermediate school, the needs of the community also have been kept in mind. By the proper location of iron gates, that portion of the building which includes the community rooms for women and men, the community locker rooms, the showers and pools, the gymnasium and the auditorium can be isolated from the remainder of the building. This plan makes the building available for community use and, at the same time, avoids many unpleasant administrative problems which might otherwise arise.

The fourth floor provides ample space for Boy Scout and similar activities. A large scout room, equipped with movable furniture, is provided, together with an office for scoutmasters.

The library, on the third floor, is designed to meet the needs of the school from both practical and recreational standpoints. The library suite consists of a large reading room, a classroom, or club-room, a workroom, a teachers' conference room, and six small conference rooms for student committees or groups of pupils interested in common projects.

On the first floor, space is planned for a moderate sized auditorium. Its capacity will approximate 750. Its purpose is not primarily for general assemblies or for community use, but for regular school work. The auditorium will be used continuously

during the day for work of a distinctly socializing nature. It is planned to bring the pupils together under conditions which will make them conscious of their social relationships, and the substance of the auditorium instruction will have a distinct trend in this direction.

The cafeteria has complete kitchen equipment and serving counter and will accommodate 322 at a seating. A teachers' dining room is in connection.

All classrooms have built-in cabinets for books and supplies, and teachers' cloak closets. Classrooms and gymnasium floors are of hard maple. Corridor floors are of battleship linoleum with terrazzo base and cove. The library floor is of linoleum. Toilets, auditorium, lunch, and locker rooms are floored with mastic with composition base and cove. All stairways are of terrazzo.¹

Again, speaking particularly of the completed Barbour Intermediate School, the editor of the *Detroit Educational Bulletin* writes as follows:

The Barbour Intermediate School, which will be opened at the beginning of the second semester, is one of the finest and most complete school buildings in the Detroit school plant. In planning the details of the building, educational specifications were furnished by the various departments of instruction concerned. These were incorporated into the plans by the architects and engineers and checked therein by the departments of instruction, so that the building, as to its instructional features, represents the collective best ideas of all the departments of instruction in the city.

Furthermore, in the hope that the building would become a community center in which the various community clubs and neighborhood organizations would meet, clubrooms for men and women are provided, which, with the gymnasiums, showers, pools, library and auditorium, will be available for extra-curricular and community use. They may be shut off from the rest of the building and are heated and ventilated separately.

All departments of instruction included in the new intermediate school curriculum, which was drawn up tentatively before plans for the building were attempted, have been provided for in the Barbour Intermediate building. Two gymnasiums, one for the boys

¹ *Detroit Journal of Education*, December, 1920.

and one for the girls, each 50 feet by 80 feet, and equipped with toilet, shower, and examination room, and having a director's office in connection, are situated on the second floor of the building. Separate swimming pools are provided for boys and girls, and shower rooms — the girls' containing seventy-two individual showers, while the boys' is of the "runway" type — are in connection with the plunges. For the use of the Health Department of the city in its work in the schools, a clinic is provided, containing separate rooms for physician, dentist, nurse, and a waiting room for patients. These, with two open play courts, provide for the health education of the pupils.

The equipment for vocational work is no less complete. Shops of various sorts, electrical, wood, mechanical, print, and a general shop for household mechanics, where the younger boys learn "handyman" activities, are provided on the ground floor. On the second and third floors, a mechanical drawing room, cooking rooms, sewing rooms, a model flat, and cafeteria and kitchen, where certain girls will learn to do cafeteria work, as well as typewriting and book-keeping rooms, complete the equipment which gives the pupils an opportunity to try out the various vocations which they may want to follow after leaving school.

The auditorium and library, two very important units in the new socialized school program, have been carefully planned to be usable at all times during the day. The library has a large main reading room, a classroom, seven small conference rooms, and a librarian's workroom. Its open shelves have room for ten thousand volumes.

Classrooms are situated on both sides of the corridor on all three floors. Lighting is unilateral, except the five corner rooms, which are equipped for fresh air classes. They all have built-in cabinets for books and supplies, and are provided with a teacher's cloak room.

The administrative quarters are planned to give every aid possible to the administrative staff. In one group, on the second floor, are the offices of the principal, assistant principal, and clerks, with separate offices for the heads of departments and for the home visiting teacher and educational and vocational counselors. A large waiting room, and, across the corridor, a teachers' workroom, complete the office space.

Clarence D. Kingsley, Inspector of High Schools for Massachusetts, writes as follows :



Malcomson, Higginbotham, and Farnes, Architects

The Levi E. Barbour Intermediate School, Detroit, Michigan

The city of Peabody worked out a unique plan for a building for a junior-senior high school. The plan consisted of a central building containing auditorium and gymnasium articulating according to Mr. Ittner's scheme, a library, domestic science equipment, a music room, and a central administrative room to be used by both schools. The senior high school was to occupy a building on one side and the junior high school on the other, and the two end buildings were to be connected with the central building by means of a neck, a straight corridor to run the entire length of the three buildings. On account of the high cost of building Peabody is not carrying out the plan in its entirety but will probably have the entire plan eventually. I am a strong believer in that type of building for a community having only one junior and one senior high school, even if the number of pupils in the two schools may be as great as two thousand.

..

CHAPTER TWENTY-ONE

JUNIOR HIGH SCHOOL STANDARDS

THROUGHOUT his discussions the writer has been guided by the conviction that the junior high school is, as yet, a type of school that is too new and too dynamic to admit of complete standardization. Hence, he has sought not to be dogmatic in his statements, but to give due prominence to important differences of opinion in regard to plans of junior high school organization and administration. Progress, however, is never made merely by observing existing conditions. Progress results only when each new plan that is tried is analyzed and the best elements it contains are reshaped and reapplied. The junior high school movement must from time to time be analyzed in this manner. Its various constituent elements must be evaluated, and tentative standards established. Such standards should serve not so much to define limits as to indicate the general direction the movement is taking.

In accordance with this idea, wherever any concerted attempt has been made to formulate standards for evaluating the junior high school, such standards have been presented as provisional and tentative. Nevertheless, such formulations are helpful, and worthy of all consideration.

STANDARDS FORMULATED IN MASSACHUSETTS

The following report on standards, prepared by C. R. Stacey, was adopted by the Schoolmen of Massachusetts in 1918:

(I) Membership should consist of pupils in grades corresponding to the seventh and eighth of the elementary school, and the freshman year of the high school.

(II) Admission should be governed not only by scholastic attainment and mental maturity, but also by age and physical maturity.

(III) The program of study should provide a wide variety of work. In the seventh grade each pupil should try out his abilities. For this purpose he should have some experience in several of the following: industrial arts, household arts, gardening, a foreign language, and commercial work, such as typewriting. Some of these subjects may be organized into short units, but in any case each pupil should actually take a variety of work instead of choosing one of several untried subjects.

In the eighth and ninth grades some pupils may continue this try-out process while others may choose a particular line of work which appears to be adapted to their needs. It is, however, important that these choices should be regarded as provisional, not as final. The pupil should be encouraged to keep an open and inquiring mind and to revise early choices if some other line of work appears to be better adapted to his needs. Much work should be taken in common by all pupils for various reasons, and at the close of the junior high school period all pupils should be admitted to the senior high school, whatever electives they may have chosen. . . .

(IV) Departmental teaching should be introduced gradually. It is desirable to have each subject taught by one especially qualified, but to take a pupil abruptly from the constant instruction of one teacher to instruction by as many teachers as he has subjects is to put serious difficulties in his path. . . .

(V) An early start should be made in some of the secondary school subjects for the sake of economizing the time of pupils doing the academic work, and in order to use better methods. . . .

(VI) Promotion should be by subject rather than by grade. This appears to be an almost uniform usage, and calls for no discussion.

(VII) Supervised study is important. While the benefits of this policy should by no means be confined to the junior high school, the stage at which departmental teaching is begun and new studies introduced is an opportune time at which to introduce supervised study. . . .

(VIII) Provision should be made for make-up work in the interests of the following:

- (a) Pupils who need help on work lost through absence.
- (b) Pupils of special ability who could with a little help make two grades in a subject in one year.
- (c) Pupils who are losing ground and need extra help in order to avoid failure.

In a small school each teacher should have some free time in which to give such assistance to individuals. In a large school special teachers also may be assigned to assist in this task. . . .

(IX) A library should be an integral part of the junior high school. In a small school one of the teachers should be assigned for part of her time to the management of the library. An English teacher may well be given this work, and she should be relieved from a proportionate amount of classroom work. In a large school a trained librarian should be employed on full time and on the same salary as a teacher, so that the library will make thoroughly available its reference books and material for supplementary reading and current news, and be most attractive as a reading room.

(X) The discipline should take into account the period of development through which the pupils are passing. Boys and girls in the early teens are no longer children, neither are they as yet young men and women. The maternal sort of control characteristic of the elementary school ought to give place to a kind of government that permits free scope for pupil initiative, self-control, and self-direction.

(XI) The training of the teachers for a junior high school is of paramount importance. Rochester gave definite preliminary training to those who were to teach in the new school. Experience in teaching was made a prerequisite, and each teacher must also have studied, at least in the high school, the subject that she desired to teach. In each subject the senior high school teacher and the grade teachers developed a course of study together. They also reviewed the subject matter. This coöperative effort furnished two elements, the blending of which was desirable for junior high schools. The former brought a greater mastery of content and the latter furnished greater experience with upper grade children and more thorough skill in methods. At the close of the school year each teacher received a rating based upon: (1) amount of experience; (2) quality of experience; (3) professional training; (4) personality. Teachers receiving the highest ratings were first selected in making up the junior high school corps. Each teacher was to receive \$100 more than she had previously had. Later the salaries were to be awarded according to merit.

THE NORTH CENTRAL ASSOCIATION

The North Central Association has, for several years, taken an interest in the formulation of standards for the junior high

school. In 1920, a special committee reported in part as follows :

In an effort to move in the direction of preparing a list of approved junior high schools, the Committee has prepared a set of tentative standards covering such matters as :

Preparation of Teachers

Salary Schedule

The Teaching Load

Building and Equipment

Program of Studies

The tentative standards for the preparation of teachers in the junior high school are as follows :

All teachers teaching one or more academic subjects must satisfy the following requirements :

- (A) The minimum attainment of the majority of the *new* teachers of academic subjects shall be equivalent to the completion of a four-year course of study in a standard college or normal school.
- (B) The minimum professional training of a *new* teacher of academic subjects shall be at least eleven semester hours in education. This should include special study of the subject matter and pedagogy of the subjects to be taught, including courses in junior high school administration and methods. Such requirements shall not be construed as retroactive.
- (C) The teachers not meeting requirement A shall be expected to complete at least one year of college work, including courses in junior high school administration and methods, within a reasonable time following their appointment to junior high school work.

Under the heading, "Teaching Load," the Committee has provided the following :

- (1) The number of daily periods of classroom instruction given by any teacher should not exceed six.
- (2) The average length of a recitation period should be forty minutes, exclusive of all time used in the changing of classes or teachers.
- (3) For schools having a plan of supervised study with class periods of fifty minutes or greater, not more than five classes per day should be assigned to any teacher.
- (4) No school whose records show an excessive number of pupils per teacher based on average attendance, shall be accredited. The Committee suggests twenty-five as a maximum.

Under the heading, "Program of Studies," the Committee has attempted to provide standards which require a marked departure from the traditional eight-four plan of school organization. These standards read :

- (1) The Committee believes that every junior high school should offer units of work in mathematics, social sciences, languages (including English), natural sciences, the fine arts, physical training, and certain of the so-called vocational subjects, such as agriculture, manual training, household economics, commercial subjects, etc.
- (2) No school shall be accredited unless evidence is submitted showing an attempt to define the units in the program of studies in a manner greater in scope and richer in content than that of the traditional elementary school.
- (3) No school shall be accredited whose administration of the program of studies does not provide for some choice of studies, elected under supervision, for promotion by subject, and for the testing out of individual aptitudes in academic and vocational work.
- (4) No school shall be accredited whose administration does not provide for some plan for supervised study.

One of the standards arousing the greatest interest on the part of junior high school principals, relates to salary schedule. In fact, this standard was the most favored of all. The standard reads :

No school shall be accredited whose salary schedule does not insure the attracting and retaining in the junior high school of teachers equal in teaching ability to those selected for senior high school teaching.

The standard relating to the junior high school building and equipment reads :

The location and construction of the building, the lighting, heating, and ventilation of the rooms, the nature of the lavatories, corridors, closets, water supply, school furniture, apparatus, and methods of cleaning shall be such as to insure hygienic conditions for both pupils and teachers. The building should contain adequate laboratory, gymnasium, auditorium, and library facilities.¹

The same Committee, in speaking of the proposed standards, reported the sentiment of schoolmen, as voiced in replies to the questionnaire, to be as follows :

¹ Proceedings, North Central Association, pages 12-A *et seq.*, 1920.

All of these requirements appeared to be acceptable to the junior high schools, except the one relating to the number of pupils per teacher. It appears to many that twenty-five is too low a maximum on account of the great cost of supplying sufficient teachers, and thirty or thirty-five is the maximum suggested by a considerable number of school principals. One administrator, Mr. C. L. Spain, Deputy Superintendent of Detroit, Michigan, in commenting on this matter says:

Under Part 3, "Teaching Load," the Committee suggests twenty-five as a class maximum. This seems to be altogether too low. It seems strange, if our schools are doing what they claim they are, that is, giving pupils more self-reliance and more power of self-direction as they progress through the grades, that we should find it necessary to segregate the seventh, eighth, and ninth grade classes into classes of twenty-five when we are successfully handling classes of thirty-five to forty-five in the lower grades.

I see no reason why the intermediate or junior high schools should not handle pupils in classes of at least thirty and preferably thirty-five, and I do not believe that we are justified in reducing this standard as low as twenty-five. I might say that this is the opinion of others in the group here who are making some study of these matters.

One year later this same Committee reported as follows:

The Committee, after a careful examination of the reports from the schools asking classification, decided to delay the preparation of a list of approved non-eight-four schools. This very cautious procedure was adopted because of the grave danger of hindering the junior high school's development by the adoption of an approved list before standards have been carefully studied, through a period of years.

The Committee will continue its work in the direction to formulate a better set of standards based on the best practice and will hope through this work to enable the Association to give some direction to the movement in the direction of reorganization.

To determine the best method of exercising the directive power of the North Central Association in encouraging the reorganization along right lines of schools departing from the eight-four plan, an informal conference was held by the Committee on Thursday, March 17, 1921, under the auspices of the Commission on Secondary Schools. This conference revealed a high degree of uncertainty

and confusion concerning the organization of junior high schools. A similar degree of uncertainty and confusion was reflected in the reports which the Committee received from schools which have undertaken some form of reorganization.

The Committee did, however, formulate and publish the following recommendations :

(1) The secondary school should be a unit in the educational system and should include grades seven to twelve. Following the presentation of this report, the Committee was instructed by the Association to consider its work in terms of a secondary school period beginning with the seventh grade and continuing to the third year of the present college organization.

(2) For purposes of administrative efficiency, these grades may be organized on the basis of the three-three plan, the two-four plan, the four-two plan, or the six-year plan as local conditions warrant.

(3) Under usual conditions a school system with fewer than five hundred pupils in grades seven to twelve should not attempt to organize on the basis of more than one unit, provided these grades are housed in one building.

(4) Under usual conditions a school system with considerably more than five hundred pupils should organize the secondary school into two units.

(5) Ultimately the training of all teachers of academic subjects in grades seven to twelve should be the same as that fixed by the North Central Association for teachers in accredited high schools.

(6) In its curricular offerings, a school should present a range of work in seventh and eighth grades which is more extensive than that offered in the traditional school, and provision should be made for some pupil choice of subjects.

(7) In the administration of the program of studies in grades seven and eight, provision should be made for :

(a) At least partial departmentalization of instruction.

(b) Promotion by subject.

(c) Pupil collateral activities supervised by school authorities.

(d) Some form of supervised study, either by teachers in the classroom or by trained, experienced supervisors in larger study halls.

(8) In the administration of the school, provision should be made :

- (a) For recitation periods of not less than thirty-five minutes, exclusive of all time used in the changing of classes or teachers.
- (b) For a teaching load of not more than thirty periods per week of forty minutes each.
- (c) For a number of pupils per teacher based on average attendance of not more than thirty.¹

In March, 1923, the Committee made a third report and recommended the adoption of the following positive standards and procedures:

Standard Junior High School

(1) A standard junior high school is a unit of our public school system consisting of grades seven, eight, and nine, organized and administered as a separate unit of the school system, having its own administrative head and corps of teachers, and characterized by flexible promotion, provisions for exploration and preview of subject matter in the early semesters of the course, and limited choice of elective subjects during the later semesters of the course.

(a) Explanation: This standard in no wise means that the seventh and eighth grades should not be organized on a junior high school basis and meet the standards to follow; nor that the six-year school should not be organized where administrative convenience or necessity demands it. But such schools would not be regarded as standard. . . .

(2) A six-year school shall be organized into two units so that the work of the seventh, eighth, and ninth grades shall meet all of the standards of the standard junior high school relative to curriculum, training of teachers, and articulation with the senior high school grades, the tenth, eleventh, and twelfth.

- (a) Neither the six-year school nor the two-year (seventh and eighth grades) junior high school is favored except as an administrative necessity.
- (b) In school systems enrolling fewer than five hundred pupils in grades seven to twelve, the committee feels the organization should be of the six-year type, but with the distinction clearly drawn between the junior and senior division at the end of the ninth year.

¹ Proceedings, North Central Association, Part I, pages 70 *et seq.*, 1921.

Buildings

(1) Facilities should be provided adequate for instruction in academic subjects, in the practical arts, in health education, in recreation, and in such subjects as may require the laboratory method. Adequate provision should be provided also for assembly programs, for social activities, and for the supervision or direction of study. . . .

Organization and Administration

(1) The school year shall be not less than thirty-six weeks.

(2) Twenty-five periods of prepared work per week shall be the maximum pupil load except in the case of pupils of more than average ability.

(3) The salary schedule of teachers with preparation equivalent to that required for senior high school service shall be the same as that of the senior high school.

Preparation of Teachers

(1) The minimum academic training of junior high school teachers of academic subjects shall be equivalent to graduation from a college accredited by the North Central Association, which requires for graduation one hundred and twenty semester hours in advance of a four-year high school course. This provision shall not be retroactive.

(2) The minimum professional training of junior high school teachers shall be not less than eleven semester hours. This provision shall not be retroactive. . . .

The Teaching Load

(1) The total number of forty-minute periods of classroom instruction given by any teacher of academic subjects shall not exceed thirty per week; nor shall the number of periods taught by any teacher of non-academic subjects exceed thirty-six per week.

(2) The total number of periods of classroom instruction given by any teacher of academic subjects in a school having some definite plan of supervised study should not exceed twenty-five per week;

nor should the number taught by any teacher of non-academic subjects exceed thirty per week.

(3) The maximum number of pupils assigned daily to any teachers of academic subjects should not exceed 210.

(4) The number of pupils per teacher based upon the average daily attendance should not exceed 25.

Program of Studies

(1) The appropriate subjects to be offered by the junior high school are: English, mathematics, foreign language, history and civics, geography and elementary science, music, art, health education, vocational information, and practical arts for both boys and girls, including commercial subjects.

(2) The program of studies shall be organized into a single curriculum with limited electives.

(a) Electives prior to the second semester of the eighth year are considered ill-advised. Prior to this semester, exploration and preview of subject matter should be provided by the content of courses and the administration of the curriculum and not by electives.

(3) Instruction shall be departmentalized.

(4) The school shall practice flexible promotion rather than promotion by subject.

(a) Flexible promotion means that pupils shall be promoted when the occasion arises and without restriction of subject promotion. It means pupil placement. It implies the use of opportunity classes and coaching teachers.

(5) The school shall provide within the school day for pupil club and social activities under the direction of the faculty.

(6) The school shall provide adequately for keeping in contact with the homes and home life of the pupils and shall introduce only gradually the freedom in discipline characteristic of the senior high school.

(7) The school shall place at least as much emphasis upon the supervision of study as upon recitation.

Articulation with the Senior High School

(1) The completion of the course in a standard junior high school shall admit the pupil to full standing in a standard three-year senior high school.

(2) Upon completion of the junior high school course the pupils shall be placed in any grade of any given subject in the three-year senior high school for which he is prepared.

(3) The standard three-year senior high school shall offer such ninth-year courses as may be necessary to provide adequately for pupils who may need such courses after they have been promoted to the senior high school, but such courses shall not constitute a part of the senior high school curriculum.

(4) In special cases pupils may be promoted to the senior high school prior to the completion of the junior high school course when it is evident that the best interests of the pupils are thus served.

Further Recommendations of the Committee

(1) That the colleges, in order to encourage the reorganization of the seventh, eighth, and ninth grades upon a junior high school basis, be requested to provide an alternative system of entrance requirements to include not more than twelve units of senior high school work, said units to be completed in the tenth, eleventh, and twelfth grades.

(2) That the following distribution of units for entrance to North Central colleges and universities be considered in the restatement of entrance requirements: a major of 3 units; two minors of 2 units each (4 units); electives, 5 units; total, 12 units.

(a) English shall be offered either as a major or minor.

(b) At least nine of the twelve units shall be in academic subjects.

(c) The two minors may be specified for entrance to the various colleges of any university.

(3) That the present high school standards of teacher training of the North Central Association be applied to the ninth grade wherever found until such time as standards can be established for the ninth grade in junior high schools.

(4) That the Association take steps to recognize three-year senior high schools as standard schools.

(5) That a committee be appointed by the Executive Committee of the North Central Association to prepare in keeping with the preceding recommendations the requirements for a list of recognized junior high schools, and to formulate a plan for the inspection of such schools with the view of establishing a recognized list; said committee to consist of two members of the Commission on Unit

Courses and Curricula, two members of the Commission on Secondary Schools, two members of the Commission on Higher Institutions, and six public school officials; said committee to report at the North Central meeting in March, 1924. It is further recommended that the said committee report on the number of schools in the North Central territory which meet the requirements proposed and that the work be carried to the point where a list of such schools can be submitted to the Association for approval in 1925.¹

SUGGESTIONS FROM WASHINGTON

In connection with plans for the organization and administration of junior high schools in the State of Washington, a committee report, made March 3, 1920, contained twenty-four queries that were recommended to supervisors for consideration and answer before any definite steps in reorganization were taken. These questions offer suggestions for standards and may serve as guides to the procedure to be followed in establishing them.

Planning for an Organization on the Six-Three-Three Plan or Six-Six Plan

A reorganization on the six-three-three or six-six plan calls for very careful investigation as to ways and means of organizing and administering a junior high school, or a junior division (grades seven, eight, and nine) of the six-year high school. The superintendent and principal will need to consider and, so far as possible, solve in advance the following problems:

(1) Housing. What distribution should be made of the floor space? If part of the high school plant is to be used, how can provision be made for keeping junior high school students to some extent separate from senior high school students? A partial segregation will be necessitated by difference between these two groups in educational requirements, disciplinary measures needed, and social activities engaged in.

(2) How long a school day should the junior high school have?

(3) What should be the length of the periods?

¹ Adapted from the report as printed in the *Proceedings, Part I*, 1923, pages 57 *et seq.*

(4) What subjects of instruction should be offered and what proportion of the pupil's time should be given to each?

(5) How much freedom of election should be allowed to the students in grade seven? grade eight? grade nine?

(6) How can provision be made for laboratories, gymnasium, and library?

(7) What methods of instruction should be used?

(8) How is the schedule, or program, to be constructed?

(9) Is the instruction to be wholly departmentalized?

(10) What arrangements are to be made for study supervision?

(11) What scheme can be devised to carry out vocational and moral guidance?

(12) What are to be the general policies on discipline?

(13) What is to be the division of labor between superintendent and principal in working out the junior high school plan?

(14) What arrangements are to be made for supervision and coordination or instruction?

(15) What provision should be made for outside activities, such as athletics, dramatics, glee clubs, and social life?

(16) What textbooks are to be chosen for use?

(17) What books are to be ordered for the library?

(18) What equipment and supplies are to be ordered?

(19) What are to be the requirements for admission to the junior high school? Should over-aged pupils who have not completed the sixth grade be admitted?

(20) What are to be the requirements for the completion of the junior high school?

(21) What grading system and credit system are to be used?

(22) How can the work of the junior high school be so articulated with the school below and above and so graduated in content and method as to avoid two bad breaks instead of only one?

(23) What account can be taken of individual differences in pupils? Can provision be made for accelerated and retarded groups?

(24) What type of faculty organization should be adopted? Should the junior and senior high school faculties be separate, or should they overlap, in schools working on the six-six plan?

PENNSYLVANIA REQUIREMENTS

Pennsylvania has recently issued a circular entitled "Essentials for Junior High School Classification." In this, the positive and recommended standards are as follows :

- (I) Type of organization ; seventh and eighth and ninth grades
 - (1) Segregated as a distinct unit where practicable.
 - (2) Organized with the tenth, eleventh, and twelfth grades into a six-year high school in small cities and rural communities.
 - (3) Inclusion of grades seven to ten where "an existing second or third class high school is dependent upon this type of organization."
 - (4) Housing the junior high school with the first six grades if local conditions require it : but, in that case, the junior high school principal is to exercise supervisory authority over both divisions.
- (II) Enrollment and faculty
 - (1) A minimum of enrollment of one hundred pupils and a faculty of four teachers.
 - (2) In case the initial organization does not exceed seventy-five pupils and a staff of three teachers, the school will be recognized as a junior high school for two years only.
 - (3) Departmental organization provided as follows :
 - (a) English and foreign language ; (b) social studies ;
 - (c) mathematics ; and (d) geography, science, and health.
 - (4) The principal shall be given time for the supervision and administration of the schools' guidance program, the school activities, and other executive duties.
- (III) Organization
 - (1) Music, drawing, industrial, agricultural, commercial, and home economics should be taught on a part-time arrangement with adjoining or nearby districts.
 - (2) Each class unit should be under the control and guidance of a home-room councillor.
 - (3) Definite time allotment should be provided for school activities. These should include (a) home-room guidance period once weekly ; (b) weekly assembly ; (c) coöperative pupil government ; (d) clubs.



Photograph by courtesy of State Department of Public Instruction, Pennsylvania
Washington Township Junior High School, Fayette County, Pennsylvania.

- (4) Promotion by subject should prevail throughout the school.
- (5) The guidance and educational placement of pupils through exploration and testing of pupil choices should be accepted as a primary purpose of the junior high school. Guidance should permeate the program of studies and every activity.
- (6) There should be a minimum school year of nine months, a school day of six hours, and six one-hour periods.
- (7) The sixty-minute period should provide for supervised study, the period usually being divided into three parts; namely, (a) for recitation or socialized presentation of yesterday's lesson; (b) a carefully planned and definite assignment of today's lesson; and (c) silent study under direction of today's lesson.

(IV) Curriculum requirement

- (1) There should be four major branches (English, social studies, mathematics, geography and science), and a fifth grouping of arts courses.
- (2) An introductory and exploratory commercial course of three periods should be provided in the first part of the eighth grade.
- (3) Health and physical education should be included as a special activity under physical instructors, or included in the schedule of some other teacher.
- (4) A course of not less than five lessons per semester should be given in the use of books and the library.

(V) Teachers' qualifications

- (1) All teachers must hold some kind of state certificate.

(VI) Building requirements

- (1) The junior high school should include classrooms, home rooms, and facilities for industrial arts and agriculture, home economics, an auditorium, a gymnasium, and a library.
- (2) A playground of at least thirty square feet per pupil shall be provided in other than rural districts; in rural districts, not less than one acre shall be provided.

It is clear from the formulations quoted above that unity of judgments is fast being developed — at least in respect to certain fundamental principles.

WISCONSIN REQUIREMENTS

Several states have passed laws relating to the junior high school. The provisions of the Wisconsin law (1919) are as follows :

Any district maintaining a district free high school, a union free high school, or a graded school in which five or more teachers are employed may establish and maintain one or more junior high schools in the manner hereinafter provided. The laws relating to district and union free high schools shall govern in the establishment and maintenance of junior high schools in so far as such laws are applicable, except as hereinafter provided.

No junior high school shall be organized in a district where the aggregate enrollment of pupils in the seventh and eighth grades for the preceding year shall have been less than 40.

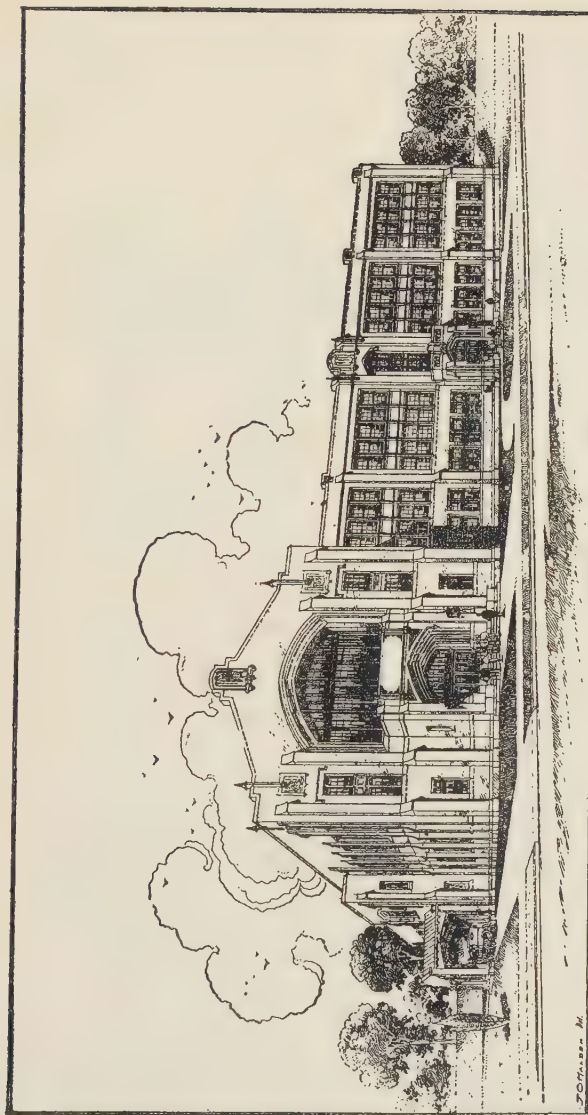
A junior high school organized in a district maintaining a district or union free high school or the equivalent thereof shall be composed only of grades seven to nine, inclusive.

A junior high school shall employ at least three teachers, one of whom shall be qualified to teach manual training or agriculture and one of whom shall be qualified to teach domestic science.

TEN STANDARDS FOR THE JUNIOR HIGH SCHOOL

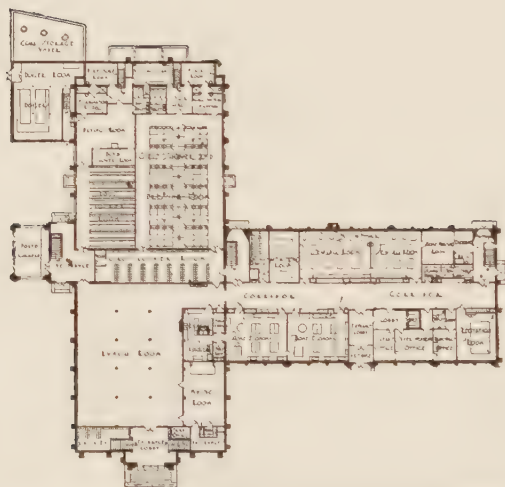
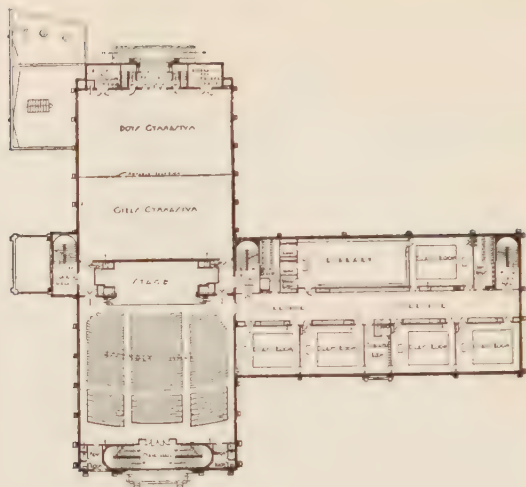
D. E. Phillips, writing for the *School Review* for March, 1919, frames a decalogue which he believes should be followed in establishing a junior high school. Although the ten standards are inadequate, the doctrine is acceptable.

- (1) Under wise guidance there shall be almost unlimited freedom in the choice of subjects.
- (2) Any student shall be freely promoted in any single subject or to any grade at any time he is able to accomplish the work of that study or grade, without regard to how much time he has spent on previous courses.
- (3) The junior high school must finally include much material not now in the grades or in the first year of the high school.
- (4) Sound scientific vocational guidance shall be a part of every junior high school.
- (5) The future junior high school shall provide ample oppor-



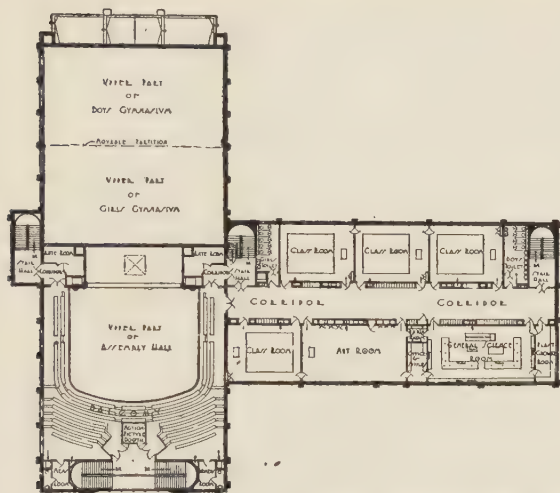
Frank I. Cooper Corporation, Architects

Junior High School at Adams, Massachusetts.



Frank I. Cooper Corporation, Architects

First-floor plan (below) and second-floor plan (above)
of Junior High School at Adams, Massachusetts.



Frank I. Cooper Corporation, Architects

Third-floor plan of Junior High School at Adams, Massachusetts.

tunity for industrial work and for practical commercial activities.

- (6) Departmental teaching is necessary to the highest efficiency in junior high school work.
- (7) Properly supervised study is desirable everywhere, but imperative in the junior high school.
- (8) When the future junior high school is adequately established, the regular high school must be adjusted to this new shrine of the golden age, and not vice versa.
- (9) We must create and train a special class of teachers for the junior high school.
- (10) The dominant aim of the junior high school must be to encourage, to inspire to some purpose in life.

These various reports constitute probably the best advice and the best sets of positive suggestions for general guidance that can be formulated at present. Boards of education and school administrators are urged to weigh carefully the recommendations.

CHAPTER TWENTY-TWO

THE OUTLOOK FOR THE FUTURE

THE test of any scheme is: Does it work? Until within the past few years there was not sufficient evidence at hand to warrant positive assertions concerning the accomplishments of the junior high school, and the claims for the newly organized school rested largely upon an *a priori* base. Not so today. From many sides come expressions of commendation.

Superintendent P. W. Horn of Houston, Texas, says:

Year before last we determined to inaugurate the policy of junior high schools and we erected two magnificent junior high school buildings. These schools were intended to meet the needs of that large group of children for whom neither the high school nor the elementary school has previously made adequate provision, and many of whom have as a result been dropping out of school. One of the prominent features in our history during the past school year has been our effort to carry out the junior high school idea and to meet more nearly the needs of the children of this group.

It is needless to say that this task has not as yet been fully completed. School systems do not ordinarily grow by revolution or by miracle. Their perfecting is a matter of steady growth and slow development. While I am sure that our junior high schools have accomplished a great deal during the past year, I am equally sure that it will take several years for them to become fully established and several years more for their results to be fully measured or appraised.

One of the first things which our experience showed is that you cannot establish a junior high school by merely cutting off one year of the elementary schools and two years of the high school, putting these under one building, and calling them a junior high school.

There might or might not be a certain amount of good in this simple process, but its effect for either good or evil would be very limited. The junior high school is not an elementary school. Neither is it a high school. Neither is it a sort of mixture of the two in equal proportions. If it is in reality an institution worthy

of its place in our educational economy, it is an institution which is neither an elementary school nor a high school, but a provision for the needs of those children for which neither of the older institutions made suitable provision. It partakes to some extent of the nature of each, but it is essentially different from either.

The chief difficulty in the way of making the junior high school reach its full measure of success lies in establishing a clear-cut junior high school idea in the minds of all concerned. It is by no means easy to get the teachers to understand fully just what they are trying to do. The idea too frequently is that the junior high school is merely a section of the old high school sawed off and nailed together with a strip similarly sawed off from the elementary school. This conception spells failure in advance. There is particularly a tendency to copy the old high school plan, with its vices as well as its virtues. As a result of our last year's experience, it is my observation that teachers who have had university training but have been doing elementary school work come nearer grasping the junior high school ideal and realizing it than do teachers whose only experience within recent years has been in high school work.¹

Superintendent Horn subsequently summed up the advantage of the junior high school thus :

It is the opinion of the writer, and of all others who have studied the junior high school movement in Houston, that good results have materialized from it. No miracles have been worked, and none need be expected. It is a pleasure, however, to re-state the advantages which we have found to come from our junior high schools. The list is largely, though not wholly, the same that was given in the annual report of the Houston schools two years ago. It is as follows :

- (1) More pupils are kept in school.
- (2) Teachers are better able to specialize.
- (3) There are more men teachers for older pupils.
- (4) The change in school methods comes with the change from youth to adolescence.
- (5) Change from grammar school methods to high school methods is made less abrupt.
- (6) Methods of discipline are better suited to pupils of adolescent age.

¹ *Journal of Education*, October 14, 1915.

- (7) Earlier opportunity is given for the election of subjects.
- (8) Pupils save time through earlier opportunity to take additional subjects.
- (9) Promotion by subjects instead of by grades is introduced earlier.
- (10) High school is brought geographically nearer the homes of the pupils.
- (11) Increased attention is given to industrial training.
- (12) Increased attention is given to physical education. Swimming pool, gymnasium, etc., made this possible.
- (13) A better stopping place is provided for those who must take up the work of breadwinning without four full years in high school.
- (14) A larger senior high school and larger graduating classes are possible, as a result of better methods below. More high school graduates go to college.
- (15) There is better opportunity for proper supervision of study periods.
- (16) Opportunity for much needed reorganization of entire high school course of study is offered.
- (17) Change of viewpoint in the teaching of each subject in the course of study has resulted.

All these advantages have been shown by our three years of experience actually to arise from junior high school work. As we all learn more about the movement, and as more of us grasp the junior high school point of view, it is only to be expected that these advantages will be intensified.

From Duluth, Minnesota, comes the following testimony :

Junior high schools were established in Duluth four years ago, and we feel that at the present time we are able to make some definite statement on their value as a part of a school system. . . .

All 6 A students, previous to entering the junior high school, are given a general intelligence test. This year we used the National Intelligence Test. These tests are given to assist in dividing the students, upon their entry to the junior high schools, into groups according to their general ability as nearly as can be done. It is expected that those groups of higher intelligence levels will be required to do more work than those of lower intelligence, but that all who pass the beginning grade — 7 B we term it in the junior high school — must come up to a certain minimum standard which is

set by the course of study. These different groups are maintained straight through all their classes. That is, group *A* remains the same list of students in all the subjects. Separate mixed groups are maintained for students who have failed.

Over-age and over-size pupils may be and frequently are admitted to the junior high school. These pupils are given courses to fit their needs. Their classes are determined by conference with pupil, teachers, parents, and the principal of the junior high school as circumstances demand. The point, from the administrative side, is that the pupil is not required to study all the subjects in the regular curriculum. We have students who spend one half of their time or more in the shops, students who come to school half time, etc. . . .

There are three main ideas fundamental to the philosophy of the so-called pre-vocational course:

First: The courses are to be made practical so as to have general education value as indicated above.

Second: Through correlation of the shop work with the English work, the arithmetic work, and the art work as given by the other teachers, it is possible for the shop subjects to make real to the boys and girls the work of the other classes. . . .

Third: A series of shop activities enables both pupil and teacher to reach some conclusion as regards the aptitudes and abilities of individual students. This naturally leads to some educational guidance which may result in the later years, the ninth and tenth, in vocational guidance.

The vocational guidance of the junior high school is more negative than positive in that it enables both teacher and pupils to eliminate those subjects in which it is evident the pupil has small aptitude and ability.

In one class we have kept the records of those students for the four years in which the junior high schools have been in operation, and we find that the negative guidance amounted to 75 per cent and that the positive guidance amounted to 25 per cent. Of that 25 per cent positive guidance, all the students have continued in the field of work which they selected in that class, either by continuing in technical and higher education or by going out into actual employment in the previously selected field of work.

This is only one of the results which we have been able to trace. There is positive evidence of an increase in enrollment, and also an

added percentage of pupils continuing their education from the eighth year into the high school. For example, in the Irving Junior High School, six years ago 56 per cent of the girls from the eighth grade went on into the high school. For the last two years, in this school, 98 per cent of the girls have gone into the Senior High School and a large percentage of these are continuing to graduation. . . .

Junior high schools, through promotion by subject and departmental work, offer an opportunity for students to succeed in those lines in which they are gifted, without being compelled to lose a whole year because of failure to complete some particular subject in which they have not equal ability.

Through the auxiliary group activities, such as the orchestra, debating, athletics, camera club, girls' sewing clubs, and activities of this nature, the interest of the boys and girls outside of school hours can be kept on something which has real educational value.

Through the opportunities for self-control and self-government, it is possible to develop to a high degree the sense of citizenship and community ownership of the school building. Most junior high schools have an auditorium where all the children gather together. The value of an auditorium to unify the school, to mold the sentiment of the pupils, and to create a wholesome school spirit can hardly be estimated. Its value is limited only by the skill of the principal and the character of the material which he presents at his auditorium session. Certainly there is no greater opportunity for improving the civic and moral attitudes of the students than that which is given through auditorium meetings.¹

Under date of March 28, 1921, Superintendent J. L. Silvernale, of Menominee, Michigan, wrote as follows:

It may interest you to know that out of our total enrollment of 2045 in the kindergarten and grades of the Menominee City Schools we have 575 enrolled in grades nine to twelve; that our average enrollment in grades seven, eight, and nine exceeds the enrollment in grades four, five, and six; and that our enrollment in grades ten, eleven, and twelve is within ten of the enrollment of grades four, five, and six. We have only thirty-eight non-resident pupils. We have a graduating class of one hundred twenty-three, nine of

¹ Circular letter issued by Assistant Superintendent J. A. Starkweather, May 21, 1921.

which are non-resident. These figures certainly show that we have been able, by our reorganization begun five years ago, to hold our pupils in school as they are not being held elsewhere.

The 1920 census gave Menominee a population of 8907. I believe our success in holding our boys and girls in school fully warrants us in continuing along the present lines of organization.

In the *Journal of Education* for January 27, 1916, page 21, Dr. A. E. Winship summed up the reorganization idea in the following words :

The junior high school does all this in education. It must never be thought of as a "high" school, but it is more than an elementary school, where every lesson is assigned in detail, every direction given specifically, and every result checked with anxious care. There is nothing of this in the junior high school. The lessons are assigned more generally, the directions are few and not in detail, and the results are checked with less thought as to what they are than as to their significance in the growth and development of independence in thought and action on the part of the student. It is precisely what it is in the training team in athletics, — a four-bagger is the last thing aimed at on the diamond, and touchdowns and kicking goals are the last achievements on the gridiron.

The junior high school is the training squad for higher studies or for active life. It is not so serious a matter to leave school at the end of a junior high school course, but it is civically, industrially, commercially, educationally criminal for a student to leave school without the peculiar training that he gets in the junior high school, a training that is not available in the traditional elementary school.

Briggs, in his *Junior High School*, presents statistical data which tend to show that where junior high schools have been established the following outcomes have, in general, been noticed :

- (1) An increased enrollment in the grades concerned.
- (2) An increase in regularity of attendance.
- (3) An increased persistence in the school.
- (4) An increase in the percentage of promotions.
- (5) At least no less ability to pursue, with success, the advanced courses in the senior high school.

- (6) A tendency for a large percentage of the pupils not to continue, in the senior high school, the work begun as electives in the junior high school — showing possibly that the junior high school is helping pupils to discover what at least is not to their taste two years earlier than formerly had been the case.
- (7) An increase in pupil interests in school work.
- (8) An increase in school spirit.
- (9) An increase in community spirit.¹

The educational achievements of the junior high schools established by the City of Rochester are described in a notable booklet issued in September, 1919, the text of which reads in part as follows :

The Washington Junior High School was opened in September, 1915, and has, therefore, been in operation just four years. No severer test of the power of any school can be found than its ability to hold pupils interestedly at their work when compulsory education laws no longer require them to attend school. This is what this school has accomplished during these four years :

- (1) Before the Washington Junior High School was opened, only 50 per cent of all the pupils who completed the eighth grade in the elementary schools that contribute to this school remained for any further school work. During the four years that this school has been in operation more than 90 per cent of the pupils who have completed the eighth grade work in the school have remained to take the additional year which the school offers. When one stops to think that the past four years have been years of unprecedented need in many homes and of unprecedented temptation for boys and girls to withdraw from school because of the high wages which they could secure, it would be difficult to find a greater testimony to the power and effectiveness of the Junior High School than is found in its demonstrated ability to hold pupils in school during these past four years.
- (2) Not only has this Junior High School retained this large percentage of its eighth grade graduates but it has decreased by 15 per cent the number of pupils who were annually

¹ *Op. cit.*, pages 303 *et seq.*

withdrawing from the seventh and eighth grades and thereby being deprived even of the advantages of an elementary school education.

The Washington Junior High School has not only held these pupils in school but it has given to each group of pupils the kind of education which that group needed for its particular work. Those pupils, for example, who were to enter the general or college preparatory courses of the upper high school, have been grouped together and prepared definitely for their later work in mathematics and foreign language, as it had not been possible to prepare them formerly. These are the pupils from whom the professional vocations of life are recruited. But the home, industry, and commerce of our community likewise require their own special forms of training. Hitherto our schools have failed to recognize this. Those who, through choice or necessity, are to enter upon these vocations are likewise grouped according to their special needs and given a preparation quite as valuable to them and to the community as is the preparation given to those who are to enter other vocations. Thus the junior high school not only holds the pupil in school but it strives intelligently to discover special needs and special abilities and to develop these special needs and abilities just so far as is consistent with the demands of general education.

The Board of Superintendents of the City of Boston has published statistics showing certain advantages that the city has gained by following the new plan.

- (1) They relieved the congestion in the over-crowded four-year high schools.
- (2) They resulted in a saving of \$70,000 in 1920-1921, because 1390 ninth-grade pupils were taught by intermediate school teachers and in intermediate school buildings rather than in the four-year high schools.
- (3) They held into the ninth grade more than 11 per cent more pupils who finished the eighth grade than did the four-year high school that drew pupils directly from the eighth grade of the elementary schools.
- (4) The attainments of pupils in the tenth grade suffered in no conspicuous way by comparison with the pupils who had the ninth grade work in the four-year high school. On the

other hand, it was frankly acknowledged that the grades gained in that grade by former junior high school pupils were not noticeably better.¹

Finally, the fact that new junior high schools are being organized in all parts of the country is pretty good evidence that advocates of the plan have faith in their vision and are convincing taxpayers and boards of education that their vision can be realized.

Just how many true junior high schools there are in existence today is difficult to determine. As has been said, all depends on definitions. Briggs states that up to the spring of 1917 eight hundred had been reported ; but his own further analyses reduced the actual numbers to fewer than half the original figures. The United States Bureau of Education is authority for the statement that in 1920, in all cities of five thousand population or more, there were reported 354 such schools. These figures do not take into account the many junior high schools claimed by numerous smaller towns and semi-rural communities. If these are included the numbers exceed 550.

That some discrepancies exist among the figures quoted is probably true. For example, the Bureau of Education credits Ohio with thirty-eight such schools, while Rorem, in *The Junior High School Clearing House* for March-April, 1921, ascribes more than sixty of these schools to Ohio. Similarly, the report of the Bureau of Education gives Michigan twenty-two junior high schools, whereas a recent canvass indicates that the numbers run something above thirty.

It is obvious from these conflicting data that no one knows how many junior high schools there are at present in our country. It appears evident, however, that the number lies somewhere between three hundred and a thousand. When

¹ School Document No. 19, pages 46 *et seq.*, 1920.

one reads that the high schools of the land number 13,951,¹ the junior high school movement appears, by comparison, somewhat puny and disappointing. Not so, however. The evidence is abundant and cumulative that the reorganization work is going on in almost all quarters. It is sufficient to say that, whatever the number of existing schools may be, the institution is here to stay. With Detroit, in one year, appropriating \$12,000,000 for the erection of junior high school buildings; with Buffalo appropriating \$6,000,000 for new junior high school buildings; with Cleveland adopting a similar educational and building policy; with the entire State of California on record as supporting the reorganization plan; and with other states and cities busily engaged in studying the question, it is only a matter of time when the junior high schools not only will outnumber the senior high schools but, like them, will be properly standardized.

Of all the cities that have taken definite steps to develop junior high schools, Fort Wayne, Indiana, is the only one of importance that has reversed its policy and abandoned the idea. The reasons advanced for the change of front are: (1) increase in student failures in making grades; (2) excessive costs; (3) weariness of the public for "sham pretenses." If these were truly the causes underlying the action taken by Fort Wayne, then it is a fair question to ask whether Fort Wayne ever had a true junior high school.

From the evidence at hand, it seems clear that the junior high school is firmly established as a permanent unit in the American public school system. It seemingly is destined to grow in favor and to increase in strength very rapidly within the next few years. It has a unique mission to perform. It is the country's great *opportunity* school, designed to arouse the ambitions of the youths of the land, inspire

¹ U. S. Commissioner's report for 1917-1918; Bulletin No. 19, page 12, 1920.

them with a desire to realize their potentialities to the fullest possible degree, and guide them in ways that will make for individual satisfaction and social well-being. Accordingly, the junior high school is neither a sub-secondary school nor a vocational or trade school. It is distinctly and confessedly an exploratory school. Its essential function is to provide outlooks, overviews, introductions to a world organized as the workshop and playground of man, and to help each youth to discover the most effective method of adjusting himself to that world in a satisfactory manner. The junior high school is, therefore, *general* in its aims and *liberal* in its outcomes. It is essentially a *try-out* and an *information* school. It aims to do for the many what colleges of literature, sciences, and the arts seek to accomplish for the few — to give the elements of a liberal culture. Its relations to the senior high school are precisely the same as are those of the liberal arts college to the professional schools. Its aims, therefore, should be general, its curriculum general, its results general.

APPENDIX

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B. JUNIOR HIGH SCHOOL TEXTBOOKS

(The following list is by no means complete, nor are the books included in it necessarily recommended by the present author for any particular junior high school.)

(I) CIVICS AND ALLIED SOCIAL STUDIES

- ADAMS, E. W. *Community Civics*. Charles Scribner's Sons, New York.
- ALLEN, W. H. *Civics and Health*. Ginn & Co., Boston.
- AMES, E. W., and ELDRED, A. *Community Civics*. Macmillan Co., N.Y.
- ASHLEY, R. L. *The Practice of Citizenship*. The Macmillan Company, New York.
- BEARD, C. A., and BEARD, M. R. *American Citizenship*. The Macmillan Company, New York.
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- CARLTON, F. T. *Elementary Economics*. The Macmillan Company, New York.
- CHART-LEIGH, A. R. *Cambridge Geographical Textbook, Junior*. The Macmillan Company, New York.
- DAWSON, E. *Organized Self-Government*. Henry Holt & Co., New York.
- DOLE, C. F. *The Young Citizen*. D. C. Heath & Co., Boston.
- DUNN, A. W. *The Community and the Citizen*. D. C. Heath & Co., Boston.
- *Community Civics and Rural Life*. D. C. Heath & Co., Boston.
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- FIELD, JESSIE, and NEARING, S. *Community Civics*. The Macmillan Company, New York.
- FINCH, C. E. *Everyday Civics*. American Book Company, New York.
- GILES, F. M., and GILES, I. K. *Vocational Civics*. The Macmillan Company, New York.
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- GUITTEAU, W. B. *Preparing for Citizenship*. Houghton Mifflin Company, Boston.
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- HUNTINGTON, E., and CUSHING, S. W. *Commercial and Industrial Geography*. World Book Company, Yonkers, N. Y.
- LEAVITT, F. M., and BROWN, E. *Elementary Social Science*. The Macmillan Company, New York.
- MUNRO, W. B., and OZANNE, C. E. *Social Civics*. The Macmillan Company, New York.
- NIDA, W. A. *City, State, and Nation*. The Macmillan Company, New York.
- PARSONS, G. *Land of Fair Play*. Charles Scribner's Sons, New York.
- REED, T. H. *Loyal Citizenship*. World Book Company, Yonkers, N. Y.
- REINSCH, P. S. *The Young Citizen's Reader*. B. H. Sanborn & Company, Boston.
- RICHMAN, J., and WALLACH, I. R. *Good Citizenship*. American Book Company, New York.
- SMITH, J. F. *Our Neighborhood*. The John C. Winston Company, Philadelphia.
- STEPHENSON, N. W. *School History of the United States*. Ginn & Co., Boston.
- TRYON, R. M. *The Teaching of History in Junior and Senior High Schools*. Ginn & Co., Boston.
- TUFTS, J. H. *The Real Business of Living*. Henry Holt & Co., New York.
- TURKINGTON, G. A. *My Country*. Ginn & Co., Boston.
- VAN LOON, H. W. *Story of Mankind*. Boni & Liveright, New York.
- ZIEGLER, S. H., and JAQUETTE, H. *Our Community*. The John C. Winston Company, Philadelphia.

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- BAKER, F. T., and THORNDIKE, A. H. *Everyday English*. The Macmillan Company, New York.
- BARTHOLOMEW, W. E., and HURLBUT, F. *The Business Man's English*. The Macmillan Company, New York.
- BOLENIUS, E. M. *Lessons in Everyday English*. American Book Company, New York.
- BRIGGS, T. H., MCKINNEY, I., and SKEFFINGTON, F. V. *Junior High School English*. Ginn & Co., Boston.
- CLAXTON, P. P., and MCGINNISS, J. *Effective English, Junior*. Allyn & Bacon, Boston.
- DAVIS, R. *Practical Exercises in English*. Ginn & Co., Boston.
- DAVIS, R., and GETCHELL, F. G. *Stories of the Day's Work*. Ginn & Co., Boston.
- ELSON, W. H., and KECK, C. *Junior High School Literature*. Scott, Foresman & Co., Chicago.
- FOSS, H. *Aid in the Study of Grammar for Junior High School*. H. Foss, Dunkirk, New York.

- GOLDGERGER, H. H. *English for Coming Citizens*. Charles Scribner's Sons, New York.
- HITCHCOCK, A. M. *Junior English Book*. Henry Holt & Co., New York.
- HOLZINGER, M. S. *Fundamentals of Business English*. World Book Company, Yonkers, New York.
- KAVANA, R. M. *The Elements of English Composition*. Richard G. Badger, Boston.
- LAW, F. H. *English for Immediate Use*. Charles Scribner's Sons, New York.
- LEWIS, W. D., and HOSIC, J. F. *Practical English for High Schools*. American Book Company, New York.
- MANLY, J. M., and BAILEY, E. R. S. *Junior High School English*. D. C. Heath & Co., Boston.
- MCGREGOR, A. L. *Supervised Study in English for Junior High School Grades*. The Macmillan Company, New York.
- MURRAY, —, and WILES, —. *First Book in English*. D. C. Heath & Co., Boston.
- OLDHAM, S. R. *Laboratory Manual of English Composition*. World Book Company, Yonkers, New York.
- PEARSON, H. C., and KIRCHWEY, M. F. *Essentials of English*. American Book Company, New York.
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- RICH, M. I. *A Study of the Types of Literature*. The Century Company, New York.
- SANDWICK, R. L. *Junior High School English*. D. C. Heath & Co., Boston.
- WARD, C. H. *Junior English Grammar*. Henry Holt & Company, New York.
- WILSON, —. *Use of English*. The Macmillan Company, New York.
- WOOLLEY, E. C. *Handbook of Composition*. D. C. Heath & Co., Boston.

(III) HISTORY

- ATKINSON, A. M. *Introduction to American History: European Beginnings*. Ginn & Co., Boston.
- BEARD, C. A., and BAGLEY, W. C. *The History of the American People*. The Macmillan Company, New York.
- BOURNE, H. E., and BENTON, E. J. *Introductory American History*. D. C. Heath & Co., Boston.
- BURNHAM, S. *Our Beginnings in Europe and America*. The John C. Winston Company, Philadelphia.
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- FARIS, J. T. *Makers of Our History*. Ginn & Co., Boston.

- GLOVER, W. *Brief History of Modern Europe*. World Book Company, Yonkers, New York.
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- HALL, J. *Our Ancestors in Europe*. Silver, Burdett & Co., New York.
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- LANE, M. A., and HILL, M. *American History in Literature*. Ginn & Co., Boston.
- MCMASTER, J. B. *Primary History of the United States*. American Book Company, New York.
- MORRIS, C. *School History of the United States*. J. B. Lippincott Company, Philadelphia.
- NEWMAN, J. B. *Beginners' Ancient History*. World Book Company, Yonkers, New York.
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- NIDA, W. L. *Dawn of American History in Europe*. The Macmillan Company, New York.
- PARKMAN, F. *The Boys' Parkman*. Little, Brown & Co., Boston.
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- SOUTHWORTH, G. V. *First Book in American History*. D. Appleton & Co., New York.
- STEELE, J. D., and STEELE, E. B. *Barnes' Elementary History of the United States*. American Book Company, New York.
- TAPPAN, E. M. *Our European Ancestors*. Houghton Mifflin Company, Boston.
- WEBSTER, H. *Early European History*. D. C. Heath & Co., Boston.
- WEST, W. M. *Story of Man's Early Progress*. Allyn & Bacon, Boston.
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- WOODBURN, J. A., and MORAN, T. F. *Citizen and the Republic*. Longmans, Green & Co., New York.

(IV) LANGUAGES

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- ALDRICH, F. D., and FOSTER, I. L. *Elementary French*. Ginn & Co., Boston.
- ALLEN, P. S., and SCHOELL, F. L. *First French Composition*. Henry Holt & Co., New York.
- BALLARD, A. W. *Beginner's French*. Charles Scribner's Sons, New York.
- CERF, B., and GIESE, W. F. *Beginning French*. Henry Holt & Co., New York.

- CLARKE, G. H., and MURRAY, C. J. *School Grammar of Modern French*. E. P. Dutton & Co., New York.
- DOWNER, C. A. *First Book in French*. D. Appleton & Co., New York.
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- LA ROCHELLE, P. DE. *Modern French Grammar*. G. P. Putnam's Sons, New York.
- MOORE, O. H., and ALLIN, J. T. *Elements of French*. Scott, Foresman & Co., Chicago.
- ROUX, L. A. *First French Course*. The Macmillan Company, New York.
- SCHERER, P. J. *Beginners' French Reader*. World Book Company, Yonkers, New York.

(2) *Latin*

- BENNETT, C. E. *New Latin Grammar*. Allyn & Bacon, Boston.
- COLLAR, W. C., and DANIELL, M. G. *First Year Latin*. Ginn & Co., Boston.
- D'OUGE, B. L. *Concise Latin Grammar*. Ginn & Co., Boston.
- *Elements of Latin*. Ginn & Co., Boston.
- PEARSON, H. C. *Essentials of Latin for Beginners*. American Book Company, New York.
- PLACE, P. O. *Beginning Latin*. American Book Company, New York.
- SANFORD, F. W., and SCOTT, H. F. *Second Latin Book for Junior High Schools*. Scott, Foresman & Co., Chicago.
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- SMITH, M. L. *Elementary Latin*. Allyn & Bacon, Boston.

(3) *Spanish*

- CRAWFORD, J. P. W. *First Book in Spanish*. The Macmillan Company, New York.
- ESPINOSA, A. M., and ALLEN, C. G. *Beginning Spanish*. American Book Company, New York.
- HALL, G. *Poco a Poco*. World Book Company, Yonkers, New York.
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- LURIA, M. A. *Correspondencia Commercial con Ejercicios*. Silver, Burdett & Co., New York.
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- MARCIAL, D. *Primeras Lecturas en Espanol*. Ginn & Co., Boston.
- MORENO-LACALLE, J. *Elementos de Espanol*. B. H. Sanborn & Co., Boston.
- ROBERT, F. R. *First Spanish Book*. E. P. Dutton & Co., New York.
- SINAGNAN, L. *A Foundation Course in Spanish*. The Macmillan Company, New York.

- WALSH, G. M. *Primer Libro de Lectura*. D. C. Heath & Co., Boston.
WILKINS, L. A. *First Spanish Book*. Henry Holt & Co., New York.
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(V) MANNERS AND MORALS

- BALDWIN, J. *American Book of Golden Deeds*. American Book Company, New York.
COE, F. E. *Heroes of Everyday Life*. Ginn & Co., Boston.
Deans of Girls, Chicago High Schools. Manners and Conduct. Allyn & Bacon, Boston.
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STRONG, L. K. *Courtesies for Everyday Life*. L. K. Strong, Santa Ana, California.

(VI) MATHEMATICS

- BARKER, E. H. *Applied Mathematics: For High Schools and Junior High Schools*. Allyn & Bacon, Boston.
BRESLICH, E. R. *Mathematics for Secondary Schools*. University of Chicago Press, Chicago.
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— and REEVE, W. D. *General Mathematics*. Ginn & Co., Boston.
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- VOSBURG, W. L., and GENTLEMAN, F. W. *Junior High School Mathematics*. The Macmillan Company, New York.
- WENTWORTH, G. A., et al. *Junior High School Mathematics*. Ginn & Co., Boston.

(VII) MUSIC AND ART

- CARTWRIGHT, H. G. *Song Treasury*. The Macmillan Company, New York.
- DANN, H. *Junior Songs*. American Book Company, New York.
- FARNUM, R. B. *Present Status of Drawing and Art in the Elementary and Secondary Schools of the United States*. United States Bureau of Education, Washington, D. C.
- RIX, F. R. *Songs of School and Flag*. The Macmillan Company, New York.
- SHIRLEY, J. B. *Two-Part Songs for Intermediate Grades*. American Book Company, New York.

(VIII) PHYSICAL EDUCATION

- CAMP, W. C. *Handbook on Health and How to Keep Fit*. D. Appleton & Co., New York.
- CROMIE, W. J. *Group Contests for the Playground and School*. The Macmillan Company, New York.
- PEARL, N. H., and BROWN, H. E. *Health by Stunts*. The Macmillan Company, New York.
- WALDRON, W. H. *Army Physical Training*. Henry Holt & Co., New York.

(IX) PRACTICAL ARTS

- ALLEN, F. J. *A Guide to the Study of Occupations*. Harvard University Press, Cambridge, Massachusetts.
- BAILEY, L. H. *School Book of Farming*. The Macmillan Company, New York.
- BAXTER, L. H. *Handcraft Projects*. Bruce Publishing Company, Milwaukee, Wisconsin.
- BRACE, G. M., and MAYNE, D. D. *Farm Shop Work*. American Book Company, New York.
- CHRISTMAN, J. M. *Shop Mathematics*. The Macmillan Company, New York.
- COLLINS, A. F. *Amateur Mechanic*. D. Appleton & Co., New York.
- GEHRS, J. H. *Live Stock and Farm Mechanics*. The Macmillan Company, New York.
- IVINS, L. S., and MERRILL, F. A. *Practical Lessons in Agriculture*. American Book Company, New York.
- MANN, A. R. *Beginnings in Agriculture*. The Macmillan Company, New York.

- MARSHALL, P. *Junior Mechanics and Electricity*. Spon & Chamberlain, New York.
- MORRIS, J. *Household Science and Arts*. American Book Company, New York.
- SKILLING, W. T. *Nature-Study Agriculture*. World Book Company, Yonkers, New York.
- STOUT, A. B. *Gardening*. World Book Company, Yonkers, New York.
- THOMPSON, E. *Practical Arts for Boys in Junior High School*. Normal School, Pittsburgh, Pa.
- WEED, C. M., and RILEY, W. E. *Introduction to Agriculture*. D. C. Heath & Co., Boston.
- WINSLOW, L. L. *Elementary Industrial Arts*. The Macmillan Company, New York.
- WOOD, H. E., and SMITH, J. H. *Pre-Vocational and Industrial Arts*, Atkinson, Mentzer & Co., Chicago.

(X) SCIENCE

- BARBER, F. D. *First Course in General Science*. Henry Holt & Co., New York.
- BROWNELL, H. *General Science and the Economics of Daily Life*. P. Blakiston's Son & Co., Philadelphia.
- CALDWELL, O. W., and EIKENBERRY, W. L. *Elements of General Science*. Ginn & Co., Boston.
- CLARK, B. M. *General Science*. American Book Company, New York.
- CLUTE, W. N. *Experimental General Science*. P. Blakiston's Son & Co., Philadelphia.
- COULTER, J. G. *Elementary Science*. Charles Scribner's Sons, New York.
- ELHUFF, L. *General Science*. D. C. Heath & Co., Boston.
- FALL, D. *Science for Beginners*. World Book Company, Yonkers, New York.
- GOLDSMITH, M. *I Wonder Why*. George Sully & Co., New York.
- GREGG, F. M. *Elementary Applied Hygiene*. World Book Company, Yonkers, New York.
- GRUENBERG, B. C. *Elementary Biology*. Ginn & Co., Boston.
- HESSLER, J. C. *Junior Science*. B. H. Sanborn & Co., Boston.
- HODGDON, D. R. *Elementary General Science*. Hinds, Hayden, & Eldredge, Inc., New York.
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- HUNTER, G. W., and WHITMAN, W. G. *Civic Science in the Home*. American Book Company, New York.
- JEGI, J. I. *Practical Lessons in Human Physiology*. The Macmillan Company, New York.
- KELLY, G. L. *One Hundred Experiments in General Science*. Elkay Company, Augusta, Georgia.

- LAKE, C. H. *General Science*. Silver, Burdett & Co., Boston.
- LANKESTER, R. *Secrets of Earth and Sea*. The Macmillan Company, New York.
- MILLER, A. H. *Science for the Grades*. Miller Publishing Company, Oak Park, Illinois.
- MOSELEY, E. L. *Trees, Stars, and Birds*. World Book Company, Yonkers, New York.
- PEABODY, J. E., and HUNT, A. E. *Elementary Biology: Plant, Animal, Human*. The Macmillan Company, New York.
- PEASE, C. A. *First Year Course in General Science*. Charles E. Merrill Company, New York.
- RITCHIE, J. W. *Human Physiology*. World Book Company, Yonkers, New York.
- SEERS, A. W. *The Earth and Its Life*. World Book Company, Yonkers, New York.
- SMITH, W. P., and JEWETT, E. G. *An Introduction to the Study of Science*. The Macmillan Company, New York.
- SNYDER, W. H. *Everyday Science*. Allyn & Bacon, Boston.
- *First Year Science*. Allyn & Bacon, Boston.
- TRAFTON, G. H. *Science of Home and Community*. The Macmillan Company, New York.
- VAN BUSKIRK, E. F., and SMITH, E. L. *The Science of Everyday Life*. Houghton Mifflin Company, Boston.
- WASHBURNE, C. W. *Common Science*. World Book Company, Yonkers, New York.
- WECKEL, A. L., and THALMAN, J. L. *A Year in Science*. Row, Peterson & Co., Chicago.
- WILLIAMS, A. *Scientific Amusements*. Thomas Nelson & Sons, New York.

C. READING LISTS AND STUDY HELPS FOR THE JUNIOR HIGH SCHOOL STUDENT

(I) THE BERKELEY READING LIST

The following list of books is recommended for voluntary reading in particular grades by the school administration of Berkeley, California, in the Berkeley Course of Study for Intermediate Schools, 1917-1918:

Seventh Year

ÆSOP. *Fables*

Anonymous. *The Magic Whistle and Other Fairy Tale Plays*

ATHERTON, EDWARD. *Adventures of Marco Polo*

BAKER, RAY STANNARD. *Boy's Book of Inventions*

BALDWIN, JAMES. *Old Greek Stories*

— *Story of the Golden Age*

— *Story of Roland*

— *Story of Siegfried*

— *Thirty Famous Stories Retold*

— *Thirty More Famous Stories*

BESANT, WALTER. *Story of King Alfred*

BOLTON, SARAH K. *Famous Men of Science*

BOYSEN, HJALMAR. *Norseland Tales*

BROWN, ABBIE FARWELL. *Versions of the Norse Myths*

BUNYAN, JOHN. *Pilgrim's Progress*

BURT, M. E. *Poems Every Child Should Know*

BUTLER, ISABEL. *Song of Roland*

CARROLL, LEWIS. *Alice's Adventures in Wonderland*

CHILD, CLARENCE. *Beowulf*

CHURCH, ALFRED J. *Burning of Rome*

— *Heroes of Chivalry and Romance*

CURTIN, JEREMIAH. *Creation Myths of Primitive America*

— *Hero Tales of Ireland*

CUTTER, U. W. *Stories of King Arthur*

DAWES, SARAH E. *Bible Stories for Young People*

DE AMICIS, EDMONDO. *Cuore*

DEFOE, DANIEL. *Robinson Crusoe*

DICKENS, CHARLES. *Old Curiosity Shop*

DOUGLAS, A. M. *Heroes of the Crusades*

FARRINGTON, MARGARET. *Tales of King Arthur*

GRAY, GEORGE Z. *The Children's Crusade*

GILLIAT, E. *Forest Outlaws*

GREENWOOD, JOHN. *Stories from Famous Ballads*

- GUERBER, H. A. *Legends of Switzerland*
 — *Stories of Popular Operas*
 — *Stories of the Wagner Operas*
 HARRIS, JOEL CHANDLER. *Uncle Remus*
 HAWTHORNE, NATHANIEL. *Tanglewood Tales*
 HOWELLS, W. D. *A Boy's Town*
 HUFFORD, LOIS G. *Shakespeare in Tale and Verse*
 HUTTON, LAURENCE. *A Boy I Knew*
 JACOBS, JOSEPH. *Celtic Fairy Tales*
 — *English Fairy Tales*
 JAMES, GEORGE WHARTON. *Indians of the Painted Desert Region*
 JOHNSTON, ANNIE FELLOWS. *Aunt Liza's Hero*
 — *The Giant Scissors*
 KELLER, HELEN. *Story of My Life*
 KIPLING, RUDYARD. *Captains Courageous*
 — *Puck of Pook's Hill*
 — *First Jungle Book*
 — *Second Jungle Book*
 KNOWLES, FREDERICK L. *Tom and Maggie*
 LAMB, CHARLES and MARY. *Tales from Shakespeare*
 LANG, ANDREW. *Aladdin and Other Stories*
 — *Princes and Princesses*
 LANIER, SIDNEY. *The Boy's King Arthur*
 MABIE, HAMILTON. *Legends Every Child Should Know*
 — *Myths Every Child Should Know*
 MACLEOD, MARY. *Shakespeare Story Book*
 MAGRUDER, JULIA. *Child Sketches from George Eliot*
 MONTGOMERY, DAVID H. *Heroic Ballads*
 PALGRAVE, F. T. *Children's Treasury of Poetry and Song*
 PIER, ARTHUR STANWOOD. *Boys of St. Timothy's*
 PORTER, JANE. *Scottish Chiefs*
 PYLE, HOWARD. *Knights of King Arthur*
 — *Some Merry Adventures of Robin Hood*
 RAGOZIN, Z. A. *Siegfried and Beowulf*
 RICHARDS, LAURA E. *Golden Windows*
 — *Captain January*
 RILEY, JAMES WHITCOMB. *Child Rhymes*
 ROBERTS, C. G. D. *The Heart of the Ancient Wood*
 ROBINSON, EDITH. *A Little Puritan Rebel*
 ROLFE, W. J. *Shakespeare the Boy*
 SEAWELL, MARY I. *Rock of the Lion*
 SETON, E. T. *Two Little Savages*
 STEIN, EVALEEN. *Troubadour Tales*
 TROWBRIDGE, J. T. *Cudjo's Cave*
 TAPPAN, EVA M. *Old World Hero Stories*
 — *When Knights Were Bold*

- WARNER, CHARLES DUDLEY. *Being a Boy*
 WHITE, FRANCES HODGES. *Helena's Wonder World*
 WHITE, WILLIAM ALLEN. *Court of Boyville*
 WIGGIN, KATE DOUGLAS. *Polly Oliver's Problem*
 — *Timothy's Quest*
 WILKINS, MARY E. *Young Lucretia*
 WILSON, CALVIN DILL. *Story of the Cid*
 WILTSE, SARAH E. *Jean Valjean*
 WRIGHT, MABEL OSGOOD. *Wabono, the Magician*
 WYSS, JOHANN RUDOLPH. *Swiss Family Robinson*
 YONGE, CHARLOTTE. *Arabian Nights*

Eighth Year

- BALDWIN, JAMES. *Thirty More Famous Stories*
 BARLOW, JANE. *At the Back of the Beyond*
 — *Irish Idyls*
 — *A Creel of Irish Stories*
 BARRIE, J. M. *Little White Bird*
 BOLTON, SARAH K. *Famous Types of Womanhood*
 BRADY, CYRUS TOWNSEND. *Conquest of the Southwest*
 BROOKS, ELBRIDGE. *Abraham Lincoln*
 — *Story of U. S. Grant*
 BULFINCH, THOMAS. *Age of Chivalry*
 — *Age of Fable*
 — *Legends of Charlemagne*
 BULWER-LYTTON, E. *Last Days of Pompeii*
 BUTTERWORTH, HEZEKIAH. *On the Old Frontier*
 CERVANTES, MIGUEL DE. *Don Quixote*
 CHURCH, ALFRED J. *Stories from Greek Comedians*
 CHURCHILL, WINSTON. *The Crisis*
 — *Richard Carvel*
 COFFIN, CHARLES CARLETON. *Building of a Nation*
 CONNOR, RALPH. *Black Rock*
 CONRAD, JOSEPH. *Children of the Sea*
 COOPER, JAMES FENIMORE. *The Deerslayer*
 — *The Last of the Mohicans*
 — *The Pathfinder*
 — *The Pioneer*
 — *The Prairie*
 CRADDOCK, CHARLES EGBERT. *Down the Ravine*
 — *Young Mountaineers*
 DANA, RICHARD HENRY, JR. *Two Years Before the Mast*
 DICKENS, CHARLES. *Child's History of England*
 — *Dombey and Son*
 — *Tale of Two Cities*

- DICKENS, CHARLES. *David Copperfield*
 DUNBAR, PAUL LAURENCE. *Candle Lightin' Time*
 ELIOT, GEORGE. *Silas Marner*
 FISKE, JOHN. *War of Independence*
 FORD, PAUL LEICESTER. *Janice Meredith*
 GARRISON, OLIVER. *Parables for School and Home*
 GOLDSMITH, OLIVER. *Vicar of Wakefield*
 HARLAND, MARION. *Story of Mary Washington*
 HAWTHORNE, NATHANIEL. *House of Seven Gables*
 HIGGINSON, THOMAS WENTWORTH. *Young Folks' Book of American Ex-
 plorers*
 ——— *Java, The Pearl of the East*
 HUGHES, THOMAS. *Tom Brown's School Days*
 ——— *Alfred the Great*
 ——— *Tom Brown at Rugby*
 JACKSON, HELEN HUNT. *Ramona*
 KINGSLEY, CHARLES. *Westward Ho!*
 LANIER, SIDNEY. *Boy's Froissart*
 MARTIN, GEORGE MADDEN. *Emmy Lou*
 MARTINEAU, HARRIET. *Peasant and Prince*
 MATTHEWS, BRANDER. *Tom Paulding*
 MITCHELL, WEIR. *Hugh Wynne*
 OLLIVANT, ALFRED. *Bob, Son of Battle*
 PARKMAN, FRANCIS. *Struggle for a Continent*
 POE, EDGAR ALLAN. *The Gold Bug*
 PRESCOTT, W. H. *Conquest of Mexico*
 RASPE, RUDOLPH. *Adventures of Baron Munchausen*
 RIIS, JACOB A. *Children of the Tenements*
 ROOSEVELT, THEODORE. *Hero Tales from American History*
 ——— *Winning of the West*
 SCOTT, SIR WALTER. *Kenilworth*
 ——— *Rob Roy*
 ——— *The Talisman*
 ——— *Lay of the Last Minstrel*
 ——— *Marmion*
 SCUDDER, HORACE P. *George Washington*
 SHAKESPEARE, WILLIAM. *Midsummer Night's Dream*
 ——— *Julius Cæsar*
 ——— *Merchant of Venice*
 SHINN, CHARLES HOWARD. *Story of the Mine*
 STANLEY, H. M. *In Darkest Africa*
 STEVENSON, ROBERT LOUIS. *Travels with a Donkey*
 ——— *Master of Ballantrae*
 ——— *Kidnapped*
 STOWE, HARRIET BEECHER. *Uncle Tom's Cabin*

- SWIFT, JONATHAN. *Gulliver's Travels*
 THOMPSON, M. *Alice of Old Vincennes*
 TOWLE, G. M. *Pizarro: His Adventures and Conquests*
 TWAIN, MARK. *Tom Sawyer*
 — *Joan of Arc*
 — *Huckleberry Finn*
 — *Innocents Abroad*
 — *The Prince and the Pauper*
 VAN DYKE, HENRY. *Little Rivers*
 — *The First Christmas Tree*
 — *The Blue Flower*
 — *The Ruling Passion*
 WALLACE, LEW. *Ben Hur*
 WARMAN, CY. *The Story of the Railroads*
 WHITE, STEWART EDWARD. *Silent Places*
 — *The Blazed Trail*
 WHITE, JOHN S. *Herodotus for Boys and Girls*
 WIGGIN, KATE DOUGLAS. *Rebecca of Sunnybrook Farm*
 — *Penelope's Experiences in England*
 — *Penelope's Experiences in Ireland*
 — *Penelope's Experiences in Scotland*

Ninth Year

- ADAMS, J. H. *Harper's Electricity Book for Boys*
 ALLEN, JAMES LANE. *Flute and Violin*
Arabian Nights
 BENNETT, J. *Master Skylark*
 BESANT, WALTER. *For Faith and Freedom*
 BOLTON, SARAH K. *Famous Leaders Among Men*
 BLACKMORE, RICHARD. *Lorna Doone*
 BROWN, A. *Joint Owners in Spain*
 BULWER-LYTTON, E. *Last Days of Pompeii*
 BURNETT, FRANCES HODGSON. *That Lass o' Lowries*
 BURNEY, FRANCES. *Evelina*
 BURROUGHS, JOHN. *Wake Robin*
 CONNOR, RALPH. *Sky Pilot*
 COOPER, JAMES FENIMORE. *Deerslayer*
 — *Pioneer*
 CUMMINS, MARIA. *The Lamplighter*
 CURTIS, GEORGE WILLIAM. *Prue and I*
 CRADDOCK, CHARLES EGBERT. *Prophet of the Great Smoky Mountain*
 DARWIN, CHARLES ROBERT. *What Mr. Darwin Saw in His Voyage Round the World*
 DAVIS, RICHARD HARDING. *Soldiers of Fortune*

- DEFOE, DANIEL. *Robinson Crusoe*
 DICKENS, CHARLES. *Christmas Stories*
 ——— *David Copperfield*
 ——— *Old Curiosity Shop*
 ——— *Oliver Twist*
 ——— *Little Dorrit*
 EBERS, GEORG. *Story of My Life*
 EGGLESTON, EDWARD. *Hoosier Schoolboy*
 EWING, H. J. *Jackanapes*
 ——— *Story of a Short Life*
 FIELD, EUGENE. *A Little Book of Profitable Tales*
 FARMER, L. H. *Girls' Book of Famous Queens*
 FOX, JOHN, JR. *Little Shepherd of Kingdom Come*
 GASKELL, ELIZABETH. *Cranford*
 GRENFELL, W. T. *Adrift on an Ice Pan*
 HALE, EDWARD EVERETT. *The Man Without a Country*
 ——— *Philip Nolan's Friends*
 HAWTHORNE, NATHANIEL. *The House of the Seven Gables*
 ——— *True Stories*
 ——— *Twice Told Tales*
 HENTY, T. *Winning His Spurs*
 HOLLAND, JAMES G. *Nicholas Minturn*
 HOMER. *Odyssey*
 HOWELLS, W. D. *Venetian Life*
 INGELow, JEAN. *Stories Told to a Child*
 IRVING, WASHINGTON. *Tales of a Traveler*
 ——— *Westminster Abbey*
 ——— *Knickerbocker's History of New York*
 ——— *Life of Columbus*
 JEWETT, SARAH ORNE. *Deephaven*
 ——— *Country of the Pointed Firs*
 JACKSON, HELEN HUNT. *Ramona*
 JOHNSTON, A. F. *Georgina of the Rainbows*
 KELLY, MYRA. *Little Citizens*
 KINGSLEY, CHARLES. *Westward Ho!*
 KIPLING, RUDYARD. *Captains Courageous*
 ——— *Jungle Book*
 ——— *Kim*
 LAMB, CHARLES and MARY. *Tales from Shakespeare*
 LANIER, SIDNEY. *Boy's King Arthur*
 ——— *Boy's Mabinogion*
 LODGE, HENRY CABOT. *Selected Popular Tales*
 LONGFELLOW, HENRY W. *Tales of a Wayside Inn*
 MACDONALD, GEORGE. *Sir Gibbie*
 MACKAY, CONSTANCE. *House of the Heart*

- MARTIN, GEORGE. *Emmy Lou*
 MARTINEAU, HARRIET. *The Peasant and the Prince*
 MOORE, F. F. *The Jessamy Bride*
 MUIR, JOHN. *Our National Parks*
 — *Stickeen*
 MULOCK, D. M. (Mrs. Craik). *John Halifax, Gentleman*
 OLIPHANT, M. *Jeanne d'Arc*
 OLLIVANT, A. *Bob, Son of Battle*
 PORTER, E. H. *Just David*
 PORTER, JANE. *Thaddeus of Warsaw*
 PYLE, HOWARD. *Men of Iron*
 PLUTARCH. *Lives*
 RADFORD, —. —. *King Arthur and His Knights*
 RICHARDS, LAURA. *Captain January*
 RIIS, JACOB A. *Theodore Roosevelt, the Citizen*
 ROLFE, WILLIAM. *Shakespeare, the Boy*
 ROOSEVELT, THEODORE. *Winning of the West*
 SCOTT, WALTER. *Kenilworth* . .
 — *Marmion*
 — *Rob Roy*
 — *Talisman*
 — *Quentin Durward*
 — *Lay of the Last Minstrel*
 SLOANE, T. O'C. *Electric Toy Making for Amateurs*
 STEVENSON, ROBERT LOUIS. *Kidnapped*
 — *Merry Men*
 — *Treasure Island*
 — *Across the Plains*
 SWIFT, JONATHAN. *Gulliver's Travels*
 TAPPAN, EVA M. *In the Days of Queen Elizabeth*
 — *In the Days of Queen Victoria*
 TARBELL, IDA. *Life of Lincoln*
 TENNYSON, ALFRED. *Enoch Arden*
 THOREAU, HENRY DAVID. *Excursions*
 TWAIN, MARK. *Joan of Arc*
 — *The Prince and the Pauper*
 — *Roughing It*
 VAN DYKE, HENRY. *The Blue Flower*
 VERNE, JULES. *Mysterious Island*
 WALLACE, LEW. *Ben Hur*
 WARD, ELIZABETH S. PHELPS. *A Lost Hero*
 WARMAN, CY. *The Story of the Railroads*
 WARNER, CHARLES DUDLEY. *In the Wilderness*
 — *Life of Irving*
 WASHINGTON, BOOKER T. *Up from Slavery*

- WHITE, STEWART EDWARD. *Blazed Trail*
 WHITE, WILLIAM ALLEN. *Court of Boyville*
 WIGGIN, KATE DOUGLAS. *Rebecca of Sunnybrook Farm*
 WISTER, OWEN. *The Virginian*
 WYSS, JOHANN RUDOLPH. *Swiss Family Robinson*

(II) STORIES OF ADVENTURE

The following is a list of books for boys and girls who require tales of high adventure : ¹

- ALTSHELER, J. A. *Horsemen of the Plains*
 ——— *Last of the Chiefs*
 ——— *The Young Trailers*
 BARBOUR, R. H. *Crimson Sweater*
 BROWN, K. K. *Two Boys in a Gyrocar*
 BURTON, C. P. *Boys of Bob's Hill*
 CARRUTH, H. *Track's End*
 CLEMENS, S. L. *Huckleberry Finn*
 ——— *Tom Sawyer*
 CODY, W. F. *Adventures of Buffalo Bill*
 DEFOE, D. *Robinson Crusoe*
 DRYSDALE, W. *Fast Mail*
 GRINNELL, G. B. *Jack Among the Indians*
 ——— *Jack, the Young Ranchman*
 KALER, J. O. *Toby Tyler, or Ten Weeks with a Circus*
 LONDON, J. *Call of the Wild*
 MALONE, P. B. *Winning His Way to West Point*
 MASEFIELD, J. *Jim Davis*
 MASON, A. B. *Tom Strong*
 MOFFETT, C. L. *Careers of Danger and Daring*
 MUNROE, K. *Cab and Caboose*
 QUIRK, L. W. *Boy Scouts of Black Eagle Patrol*
 SABIN, E. L. *Bar B Boys*
 ——— *Buffalo Bill and the Overland Trail*
 SCHULTZ, J. W. *With the Indians in the Rockies*
 STEVENSON, B. E. *Young Train Despatcher*
 STEVENSON, R. L. *Treasure Island*
 VERNE, J. *Twenty Thousand Leagues under the Sea*
 WALLACE, D. *Wilderness Castaways*

¹ Charters, W. W. *School and Society*, pages 223-224, 1919.

(III) STUDY HELPS

The following list of study helps, by Dr. J. C. Brown, is particularly appropriate for junior high school students :¹

(1) Determine by trial your best time for study, then use that time whenever it is possible.

(2) Have regular hours for study and a regular sequence of hours for each subject.

(3) Determine by trial whether you succeed best by beginning with the easiest or the most difficult subjects.

(4) Conserve your energies for studies. Take enough sleep and exercise.

(5) Do not attempt to study when the brain is fatigued.

(6) See to it that external conditions are favorable for study :

(a) The room as quiet and free from other distractions as possible.

(b) A good light properly placed.

(c) The temperature of the room 65 to 68 degrees.

(d) The humidity of the room relatively high.

(e) The desk or table and the chair neither too high nor too low.

(f) The clothing loose enough, especially about the neck.

(7) Have ready all the materials that you will need.

(8) Lose no time in starting to work.

(9) Try to develop a high degree of concentration for the work to be done.

(10) Be sure that you understand exactly what the assignment is.

(11) Have a clear notion of the purpose of the assignment.

(12) Review rapidly the principal points in the previous assignment.

(13) Read the assignment rather rapidly and try to determine the most important points of the lesson.

(14) Go over the assignment a second time with great care. Try to associate facts with the important headings or principles involved.

(15) Do not attempt to memorize material that is not understood.

(16) Try to evaluate the various statements made by the author.

¹ *The School Magazine*, Buffalo, New York, pages 21-22, April, 1919.

(17) After you have gone over the assignment with great care, make an outline or a synopsis of it. Use this in reviewing.

(18) Try to supplement the thoughts and illustrations of the author.

(19) Use freely the appendix, table of contents, index, footnotes, and maps.

(20) Verify references whenever it is possible.

(21) Learn when and how to read rapidly.

(22) Learn to use the library.

(23) Do all that you can before securing aid from any other source.

(24) Do your studying before discussing the assignment with others.

(25) Use visual and auditory imagery as an aid to recall. Use also motor activity for this purpose.

(26) Work with the intent to learn and remember.

(27) In general, use in studying the form of activity that will be demanded when the material is to be used.

(28) Break long periods of study by brief periods of relaxation.

(29) Strive to excel your own record for quality of work and to shorten the time necessary for adequate preparation.

(30) Stimulate your efforts with the thought of competition decidedly superior.

(31) Realize that you are working for yourself, not for the teacher.

(32) Be very attentive in class. Strive to develop a high degree of interest in the subject. Interest tends to beget interest.

(33) Prepare each assignment thoroughly. Do not fall behind in this respect.

(34) Use the knowledge or skill required whenever there is opportunity.

(35) Do not attempt to carry too heavy a program. Do thoroughly all that you do.

(36) Mark your own books in such a way that the more important points may be rapidly reviewed by use of the book, if desired.

(37) Read current articles on the general subject when possible.

D. COMMITTEES ON SECONDARY EDUCATION

COMMITTEE ON ADMINISTRATION OF SECONDARY EDUCATION

- Jesse B. Davis, *Chairman*, state supervisor of secondary education, Hartford, Conn.
- E. G. Allen, assistant principal, Cass Technical High School, Detroit, Mich.
- Philip W. L. Cox, headmaster, Washington School, 17 E. 60th St., New York City.
- C. O. Davis, professor of education, University of Michigan, Ann Arbor, Mich.
- James M. Glass, state department of public instruction, Harrisburg, Pa.
- James F. Hosis, professor of education, Teachers College, Columbia University, New York City.
- Alexander Inglis, professor of (secondary) education, Harvard University, Cambridge, Mass.
- William B. Ittner, architect, board of education building, St. Louis, Mo.
- Clarence D. Kingsley, state supervisor of secondary education, State House, Boston, Mass.
- W. D. Lewis, deputy commissioner of education, Harrisburg, Pa.
- A. B. Meredith, commissioner of education, Hartford, Conn.
- H. L. Miller, principal, University High School, Madison, Wis.
- Jesse H. Newlon, superintendent of schools, Denver, Colo.
- Edward Rynearson, principal, Fifth Avenue High School, Pittsburgh, Pa.
- Milo H. Stuart, principal, Arsenal Technical Schools, Indianapolis, Ind.
- Will C. Wood, commissioner of education, Sacramento, Calif.

THE REVIEWING COMMITTEE OF THE COMMISSION ON THE REORGANIZATION OF SECONDARY EDUCATION

(The reviewing committee consists of 26 members, of whom 16 are chairmen of committees and 10 are members at large.)

Chairman of the commission and of the reviewing committee:

Clarence D. Kingsley, state supervisor of secondary education, Boston, Mass.

Members at large:

Hon. P. P. Claxton, provost, University of Alabama, University, Ala.

Thomas H. Briggs, professor of (secondary) education, Teachers College, Columbia University, New York City.

Alexander Inglis, professor of (secondary) education, Harvard University.

Henry Neumann, Ethical Culture School, New York City.

William Orr, senior educational secretary, international Y. M. C. A. committee, 347 Madison Avenue, New York City.

- William B. Owen, principal of Chicago Normal College, Chicago, Ill.
 J. J. Dickey, professor of secondary education, George Peabody College for Teachers, Nashville, Tenn.
 Joseph S. Stewart, professor of secondary education, University of Georgia.
 Milo H. Stuart, principal, Arsenal Technical Schools, Indianapolis, Ind.
 H. L. Terry, state high-school supervisor, Madison, Wis.

Chairmen of committees:

- Administration of secondary education¹ — Jesse B. Davis, state supervisor of secondary education, Hartford, Conn.
 Agriculture — A. V. Storm, professor of agricultural education, University of Minnesota, St. Paul, Minn.
 Art education — Royal B. Farnum, principal, Normal Art School, Boston, Mass.
 Articulation of high school and college — Clarence D. Kingsley, state supervisor of secondary education, Boston, Mass.
 Business education — Cheesman A. Herrick, president, Girard College, Philadelphia, Pa.
 Classical languages — W. E. Foster, Stuyvesant High School, New York City.
 English — James Fleming Hsieh, professor of education, Teachers College, Columbia University, New York City.
 Household arts — Mrs. Henrietta Calvin, United States Bureau of Education.
 Industrial arts — Wilson H. Henderson, extension division, University of Wisconsin, Milwaukee, Wis. (now on staff of Civilian Advisory Board, General Staff, U. S. Army, Washington, D. C.).
 Mathematics — William Heard Kilpatrick, professor of education, Teachers College, Columbia University, New York City.
 Modern languages — Edward Manley, Englewood High School, Chicago, Ill.
 Music — Will Earhart, director of music, Pittsburgh, Pa.
 Physical education — James H. McCurdy, director of normal courses of physical education, International Y. M. C. A. College, Springfield, Mass.
 Sciences — Otis W. Caldwell, director, Lincoln School, and professor of education, Teachers College, Columbia University, New York City.
 Social studies — Thomas Jesse Jones, educational director, Phelps-Stokes Foundation, New York City.
 Vocational guidance — Frank M. Leavitt, associate superintendent of schools, Pittsburgh, Pa.

¹ Former Chairman, Charles H. Johnston, professor of secondary education, University of Illinois. Deceased, September 4, 1917.

INDEX

- Abruptness of changes, 62
- Accelerants, 44
- Adaptation to needs, 60
- Adjustments, 105
- Administration, of programs of studies, 85; of the schools, 328 ff.
- Administrative advantages, 85
- Adolescence, old assumptions as to, 30; newer views in respect to, 31; physical changes in, 32; intellectual changes in, 33; emotional changes in, 34; volitional changes in, 35; pedagogical suggestion from, 40 ff.
- Æsthetic culture, 49
- Agriculture, 252 ff.
- Aims, of the reform, 52 ff., 105; of elementary school, 68; of secondary school, 68; of junior high school, 97, 102, 103
- Algebra, 120
- American Sociological Society, quoted, 185
- Ancient history, 117
- Applied arts, 47
- Art, 274 ff.
- Articulation, 329 ff.
- Art of study, 43
- Assemblies, 354
- Association of Collegiate Schools of Business, quoted, 187
- Association of Teachers of Science and Mathematics, quoted, 186
- Athletics, 366 ff.
- Auditorium exercises, 47, 354

- Bagley, W. C., quoted, 107
- Baker, J. H., quoted, 21
- Barnes, W. B., quoted, 142
- Beattie, J. W., quoted, 279
- Beginnings of the junior high school, 21 ff.
- Ben Blewett School, 170, 223, 370
- Berkeley, courses in, 292 ff.
- Bibliography on junior high school, books, 417; bulletins, 417; text-books, 426; reading lists, 435
- Biography, 183
- Biology, 214

- Bobbitt, F., quoted, 123, 235
- Bond, Ella B., quoted, 274
- Bookkeeping, 251
- Boston, plan of credit in, 336; achievements in, 413
- Boy Scouts, 378
- Breslich, E. R., quoted, 199
- Briggs, H. L., quoted, 256 ff.
- Briggs, T. H., quoted, 26, 96, 411
- Buffalo, courses in, 244, 312; buildings in, 246, 377
- Buildings, 40, 373
- Butler, N. M., quoted, 21

- Cardinal principles, 90 ff.
- Carey, C. P., quoted, 11
- Carmichael, H. F., quoted, 344
- Causes of elimination, 60 ff.
- Central schools, 75, 76
- Chicago, courses in practical arts in, 243 ff.
- Citizenship, 180, 184
- Civic education, 94
- Civics, 120
- Cleveland, plan of credits in, 337
- Clubs, 358 ff.
- Collateral activities, 353 ff.
- Comenius' influence, 15
- Commercial work, 249 ff.
- Commission on Reorganization of Secondary Education, 212 ff., 230, 247, 249, 265
- Committee reports. *See* Report
- Common facilities, 86
- Common factors in education, 68
- Common schools, 68
- Community needs, 107, 110
- Community service, 355
- Community survey, 110
- Conceptions of culture, 71 ff.
- Concrete material, 54
- Confusion regarding reform, 5 ff.
- Content, 29
- Costs, 351
- Cotter, A. M., quoted, 342
- Course of study, 104
- Courses, in physical education, 127; in English, 144 ff.; in foreign languages, 161 ff.; in social studies,

- 190; in mathematics, 203 ff.; in science, 220; in practical arts, 230; in occupations, 266; in music and art, 274 ff.; in morals and manners, 285 ff.
- Cox, P. W. L., quoted, 169 ff.
- Crampton, C. W., quoted, 39
- Crawshaw, F. D., quoted, 234
- Credits, 330 ff.
- Curricula, 112 ff., 114
- Curtis, Elnora, quoted, 363
- Davenport, F. M., quoted, 73, 193
- Davenport, program of studies in, 319
- Definitions, 1 ff.
- Democracy, 90
- Democracy's ideal, 59 ff.
- Departmental instruction, 18, 342
- Departmental schools, 9, 22
- Detroit, program of studies in, 317 ff.
- Dewey, J., quoted, 21, 66
- Differentiated curricula, 22
- Direct method, 176
- Domestic science, 230 ff.
- Drake, E. H., quoted, 104
- Dramatics, 46, 361 ff.
- Drawing, 121, 274 ff.
- Duluth, program of studies in, 320
- Early reforms, 16, 22, 26
- Economizing time, 58, 59
- Edmonson, J. B., quoted, 167
- Educational philosophies, 88 ff.
- Eight-four plan, 66
- Electives, 106, 343 ff.
- Elementary education, 68
- Eliot, C. W., 16, 216
- Emotional characteristics of adolescents, 34
- England, schools of, 77
- English, aims of teaching, 136; current teaching of, 139; grammar, 139; methods of teaching, 142; typical courses in, 144 ff.; administration of course in, 149; list of theme subjects for, 152 ff.; recommendations of North Central Association in regard to, 156
- English grammar, 117
- Enrichment, 107 ff.
- Ephebic oath, 194
- Equality of opportunity, 67
- Ethical character, 94
- Ethics, books on, 290
- Expert opinions, 101, 123
- Exploration, 98, 100, 106, 122
- Expression, 136
- Factors making a junior high school, 13, 14
- Fatigue, 41
- Fine arts, 47, 121, 270 ff.
- First junior high school, 22, 23
- Fisher Act, 76
- Flexibility of administration, 115
- Foreign influences, 20
- Foreign languages, study of, 120; aims of teaching, 160; introductory course in, 161 ff.; place of Latin in, 167; methods of teaching, 168 ff.
- Foreign school systems, 73 ff., 83
- Formal discipline, 70, 71
- Fort Wayne's attitude, 415
- French, 175
- French schools, 77
- Functions of secondary schools, 96 ff., 102 ff., 122 ff.
- Fundamental processes, 91
- General mechanics, 256 ff.
- General science, 211 ff.
- German schools, 79
- Gifted children, 59
- Gilchrist, E. P., quoted, 367 ff.
- Glass, J. M., quoted, 105, 106, 182, 262, 264, 351
- Gosling, T. H., quoted, 7
- Gould, A., quoted, 263, 333
- Graduation exercises, 350
- Grammar, 139 ff.
- Grand Rapids, self-analysis blanks used in public schools of, 267 ff.; program of studies in, 296 ff.
- Gray, M. D., quoted, 171 ff.
- Greeson, W. A., quoted, 298
- Grouping grades, 85
- Gymnastics, 130
- Hall, G. S., quoted, 363
- Hall-Quest, A. L., quoted, 44

- Handwork, 230
 Hanus, P. H., 21; quoted, 67
 Harper, W. R., 21
 Hartwell, E. C., quoted, 312
 Health education, 41, 125, 126
 Higher elementary schools, 75 ff.
 High School Principals, National Association of, 184-185
 History, 178 ff.
 Holmes, H. W., quoted, 59
 Home economics, 230, 247
 Home membership, 91
 Home room, 347
 Homogeneous groups, 50
 Horn, P. W., quoted, 406 ff.
 Hosic, J. F., quoted, 76 ff.
 Household arts, 230
 Human interests, 50
 Humanizing education, 52
 Huxley, T., quoted, 73
 Hygiene, 128 ff.
- Ideas of culture, 71
 Immediate aims, 94
 Importance of puberty, 39 ff.
 Individual differences, 45 ff.
 Inglis, A., quoted, 102, 121
 Intellectual traits of adolescence, 33
 Intensity, 338
 Intermediate school, 9
 Introductory courses, 53, 161
 Ittner, W. B., quoted, 377
- Japanese schools, 82
 Johnston, C. H., quoted, 6
 Jones, A. P., quoted, 10
 Judd, C. H., quoted, 107, 334
 Junior high school, factors of, 13;
 aims of the, 96 ff.; as an exploratory school, 96 ff.; as a vocational school, 101, 108
- Kalamazoo, program of studies in, 303
 Kingsley, C. D., 25; quoted, 385
 Koos, L. V., quoted, 37, 43, 101
- Laboratory equipment, 228
 Latin, 167 ff.
 Levels of experience, 123
 Lincoln School, 208
- Literature, 138, 145, 153 ff.
 Los Angeles, courses in practical arts in, 244; courses in art and music in, 276; courses in morals and manners in, 284; plan of credits in, 333
 Lyford, Carrie A., quoted, 255
 Lyman, R. L., quoted, 192, 370
- Manners, course in, 285
 Manual training, 236
 Marsh, E. O., quoted, 374
 Martens, C., quoted, 264
 Maryland, bulletin on music issued in, 271; phonograph record list issued in, 280
 Massachusetts, school men of, quoted, 217, 386
 Mathematics, 120, 195
 Medieval education, 64 ff.
 Menominee, courses in, 220; practical arts in, 239; program of studies in, 302
 Mental discipline, 70
 Men teachers, 55
 Methods, in junior high school, 28, 42; in English, 142; in Latin, 167; of teaching, 176, 348; in social studies, 185; in mathematics, 202; in science, 217
 Middleton, course in occupations in, 266
 Migratory instinct, 41
 Miller, E. L., quoted, 174
 Modern foreign languages, 175
 Monmouth, courses in 221; practical arts in, 238; commercial work in, 252; music in, 274
 Morals, 285
 Motion pictures, 46
 Music, aims of teaching, 270; in Monmouth, 274; in Los Angeles, 276; in Rochester, 277; reorganization of, 279
- Name, controversy over, 9
 National Association of High School Principals, 184-185
 National Committee on Mathematical Requirements, 196
 National Councils' Study, 351

- Natural history, 217
 Nature study, 217
 Newlon, J. H., quoted, 114
 New subjects in curriculum, 119
 New York Music Memory List, 280
 Ninth-grade courses, 63
 North Central Association, statistics,
 1, 6; views of, on English, 156 ff.;
 resolutions of, on junior high
 school, 334; standards of, for
 junior high school, 389 ff.
 Objections to junior high school, 10
 Objectives, 90, 95, 102
 Occupations, course in, 266
 Old types of schools, 69
 Opportunity for pupils, 107
 Oral English, 145
 Outlooks, 406
 Overcrowding, 86
 Pageantry, 46
 Pasadena, program of studies in,
 295
 Patterson, Alice J., quoted, 218
 Pennsylvania, standards in, 399
 Periods per week, 338
 Personal influences, 55
 Phillips, D. E., quoted, 402
 Philosophies of education, 88 ff.
 Physical condition of adolescents, 32
 Physical geography, 117
 Physical training, aims of teaching,
 41, 125, 372; in Rochester, 127 ff.;
 in Los Angeles, 130 ff.
 Practical considerations, 107
 Practical arts, 230
 Practice in well-doing, 56
 Practices abroad, 83
 Principals, National Association of
 High School, 184-185
 Principles of secondary education,
 90 ff.
 Program of physical education, 126
 Programs of study, 56, 104, 110,
 292 ff.
 Projects, 54
 Promotion by subject, 18
 Puberty, 30, 39
 Public health, 132
 Purposes of junior high school, 28
 Qualifications of teachers, 348
 Questions relating to the program of
 studies, 117
 Radford Normal School courses, 222
 Reading lists of books, 435 ff.
 Recording credits, 330
 Religious yearnings, 48
 Reorganization of secondary educa-
 tion, 25
 Report, of the Committee of Ten, 17;
 of the Committee of Fifteen, 18-
 19; of the Committee on College
 Entrance Requirements, 19; on
 "What the High School Should
 Accomplish," 23-24; of the Com-
 mission on Secondary Education,
 25, 98 ff.
 Resolutions of North Central Asso-
 ciation, 1, 59
 Retardants, 44
 Rochester, New York, report on
 English in, 150; courses in, 225;
 report on music and art in, 227;
 results in, 412
 Rugg, H. O., quoted, 189
 St. Louis, program of study in, 318
 Sandiford, P., quoted, 75 ff.
 Sargent, W., quoted, 271
 Scandinavian schools, 81
 Schorling, R., quoted, 208
 Schweiring, O. C., quoted, 67
 Science, aims of teaching, 211;
 general, 211; recommendations
 for courses in, 212; biological,
 214; methods of study in, 217;
 practices in, 220; laboratory
 equipment for the study of, 228
 Secondary education abroad, 75 ff.
 Segregation, sex, 42, 347; of homo-
 geneous groups, 58
 Self-analysis blanks, 267
 Self-government, 356
 Selvidge, R. W., quoted, 234
 Sex education, 132
 Sex segregation, 42, 347
 Sexton, J. W., quoted, 202
 Shop mathematics, 206
 Silvernale, J. L., quoted, 410
 Six-year school, 11, 12, 18

- Size of junior high school, 12
 Smith, D. E., quoted, 195
 Smith-Hughes classes, 311
 Snedden, D., quoted, 95
 Social recitation, 49, 111, 112, 365
 Social studies, aims of, 107, 178; his-
 tory of, 178; programs in, 181;
 recommendations for, 185; out-
 lines of courses in, 190
 Social welfare, 89
 Spain, C. L., quoted, 308, 358
 Standards, junior high school, 42;
 formulated in Massachusetts, 386;
 of North Central Association, 389
 ff.; suggestions from Washington
 as to, 397; recommended by Penn-
 sylvania, 399
 Starkweather, J. A., quoted, 343, 408
 Statistics on junior high school, 2 ff.,
 27
 Stories of adventure, 441
 Student self-government, 356
 Study, H. P., quoted, 328
 Study helps, 442
 Supervised study, 43, 339
 Survey of community, 110

 Teachers, 348
 Tendencies in foreign lands, 83 ff.
 Textbooks, lists of, 426 ff.

 Transfer of powers, 57
 Try-out courses, 234

 United States Health Bulletins, 132.
 University of Michigan's approval,
 332
 Use of books, 146
 Use of leisure, 94

 Van Denburg, J. K., quoted, 163, 273
 Visual appeals, 46
 Vocational guidance, 264
 Vocational work, 91, 101, 108, 230,
 262
 Volitional traits of adolescents, 35

 Washington, standards in, 397
 Watson, Helen S., quoted, 337
 West Virginia course in English,
 144 ff.
 Whipple, G. M., quoted, 35, 36, 43
 Whitbeck, R. H., quoted, 187
 Winship, A. E., quoted, 411
 Wisconsin Law, 402
 Withdrawals, 59

 Yearbook of National Society for the
 Study of Education, 119
 Youngstown, General Language
 Course in, 164

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